Management's discussion and analysis

February 8, 2019

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, 2018. The information is based on what we knew as of February 7, 2019.

We encourage you to read our audited consolidated financial statements and notes as you review this MD&A. You can find more information about Cameco, including our financial statements and our most recent annual information form, on our website at cameco.com, on SEDAR at sedar.com or on EDGAR at sec.gov. You should also read our annual information form before making an investment decision about our securities.

The financial information in this MD&A and in our financial statements and notes are prepared according to International Financial Reporting Standards (IFRS), unless otherwise indicated.

Unless we have specified otherwise, all dollar amounts are in Canadian dollars.

Throughout this document, the terms we, us, our, the Company and Cameco mean Cameco Corporation and its subsidiaries, unless otherwise indicated.

Caution about forward-looking information

Our MD&A includes statements and information about our expectations for the future. When we discuss our strategy, plans, future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be *forward-looking information* or *forward-looking statements* under Canadian and United States (US) securities laws. We refer to them in this MD&A as *forward-looking information*.

Key things to understand about the forward-looking information in this MD&A:

- It typically includes words and phrases about the future, such as: anticipate, believe, estimate, expect, plan, will, intend, goal, target, forecast, project, strategy and outlook (see examples below).
- It represents our current views, and can change significantly.
- It is based on a number of *material assumptions*, including those we have listed on page 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

- we will continue to take the necessary actions intended to shield the company from the nearer-term risks we face and that we expect will reward shareholders for their continued patience and support of our strategy to build long-term value
- our expectations about 2019 and future global uranium supply, consumption, demand, contracting volumes and number of reactors, including the discussion under the heading *Market overview and developments*
- the discussion under the heading *Our strategy*
- expectations for repayment of our $500 million debenture maturing in 2019
- our expectations for uranium purchases
- our expectations for uranium sales and deliveries
- the discussion of our expectations relating to our Canada Revenue Agency (CRA) transfer pricing dispute, including that the Tax Court of Canada's (Tax Court) ruling will be upheld on appeal and 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), including the estimated damages sought of approximately $700 million (US)
- the discussion under the heading *Outlook for 2019*, including our 2019 financial outlook, expectations for 2019 gross profit and cash balances, and our price sensitivity analysis for our uranium segment
- the outlook for our uranium and fuel services segments for 2019
- our expectations for future tax payments and rates, including effective tax rates
- our expectation that existing cash balances and operating cash flows will meet our anticipated 2019 capital requirements, even if we decide to retire our $500 million debenture maturing in 2019
- our expectations for 2019, 2020 and 2021 capital expenditures
- our expectation that in 2019 we will be able to comply with all the covenants in our unsecured revolving credit facility
- production and life of mine operating cost estimates for the Cigar Lake and Inkai operations
- future plans and expectations for uranium properties, advanced uranium projects, and fuel services operating sites
- our expectations related to care and maintenance costs, including incurring between $130 million and $160 million in 2019
- our mineral reserve and resource estimates
- our decommissioning estimates

Material risks

- actual sales volumes or market prices for any of our products or services are lower than we expect for any reason, including changes in market prices, loss of market share to a competitor or trade restrictions
- we are adversely affected by changes in currency exchange rates, interest rates, royalty rates, or tax rates
- our production costs are higher than planned, or our cost reduction strategies are unsuccessful, or necessary supplies are not available, or not available on commercially reasonable terms
- our strategies are unsuccessful or have unanticipated consequences
- our estimates of production, purchases, cash flow, costs, decommissioning, reclamation expenses, or our tax expense 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 dispute with CRA or with TEPCO
- we are unsuccessful in our dispute with CRA and this results in significantly higher cash taxes, interest charges and penalties that could have a material adverse effect on us
- 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 there are unexpected or challenging geological, hydrological or mining conditions
- we are affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays
- necessary permits or approvals from government authorities cannot be obtained or maintained
- 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
- government laws, regulations, policies or decisions that adversely affect us, including tax and trade laws
- the outcome of the investigation initiated by the US Department of Commerce (DOC) under Section 232 of the Trade Expansion Act, which may result in the US imposing tariffs or quotas on uranium imports
- our uranium suppliers fail to fulfil delivery commitments or our uranium purchasers fail to fulfil purchase commitments
- 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 the McClean Lake mill or resuming production after the extended Cigar Lake shutdown scheduled for the third quarter
- water quality and environmental concerns could result in a potential deferral of production and additional capital and operating expenses for the Cigar Lake operation
- JV Inkai's development, mining or production plans are delayed or do not succeed for any reason
- our expectations relating to 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 (including our Port Hope conversion facility and Orano's McClean Lake mill), 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, trade restrictions, and that counterparties to our sales and purchase agreements will honour their commitments
- our expectations regarding the demand for and supply of uranium
- our expectations regarding spot prices and realized prices for uranium, and other factors discussed under the heading *Price sensitivity analysis: uranium segment*
- that the construction of new nuclear power plants and the relicensing of existing nuclear power plants not being more adversely affected than expected by changes in regulation or in the public perception of the safety of nuclear power plants
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our expected production levels for uranium and conversion services
- our cost expectations, including production costs, purchase costs, and the success of our cost reduction strategies
- our expectations regarding tax rates and payments, royalty rates, currency exchange rates and interest rates
- our expectations about the outcome of the disputes with CRA and TEPCO, including that the Tax Court's ruling will be upheld on appeal
- we are able to utilize letters of credit to the extent anticipated in our dispute with CRA
- the outcome of the investigation initiated by the DOC under Section 232 of the Trade Expansion Act does not result in the US imposing tariffs or quotas on uranium imports
- 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 uranium properties
- our Cigar Lake development, mining and production plans succeed, including the resumption of production after the end of the extended shutdown scheduled for the third quarter
- the McClean Lake mill is able to process Cigar Lake ore as expected
- JV Inkai's development, mining and production plans succeed
- that care and maintenance costs will be as expected
- our and our contractors' ability to comply with current and future environmental, safety and other regulatory requirements, and to obtain and maintain required regulatory approvals
- our operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, blockades, civil unrest, breakdown, natural disasters, 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 (including at our Port Hope conversion facility and Orano's McClean Lake mill), 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 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. 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

Our uranium production capacity is among the world's largest. However, in 2018, with many of our operations in care and maintenance, we accounted for 9% of world production. We have controlling ownership of the world's largest high-grade reserves.

Advanced Uranium Projects

We use a stage gate process to evaluate our uranium projects and will advance them at a pace aligned with market opportunities, in order to respond when the market signals a need for more uranium.

Uranium Exploration (grey shaded)

Our exploration program is directed at replacing mineral reserves as they are depleted by our production. Our land holdings total about 0.7 million hectares (1.7 million acres). In northern Saskatchewan alone, we have direct interests in about 0.6 million hectares (1.6 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin. Our active exploration programs are focused on Canada.

FUEL SERVICES

We are an integrated uranium fuel supplier, offering refining, conversion and fuel manufacturing services. We control about 25% of world primary conversion capacity.

MARKETING

We sell uranium and fuel services to nuclear utilities in 13 countries, with sales commitments to supply about 125 million pounds of U_3O_8 and over 40 million kilograms of UF_6 conversion services.

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.

* Operation suspended/curtailed due to current market conditions

Advantages

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

2018 performance highlights

Our focus throughout 2018 continued to be on lowering our costs and improving efficiency in order to maximize cash flow amid ongoing challenging and uncertain uranium market conditions. We have seen a significant improvement in the market relative to a year ago and continue to anticipate a market shift. Despite these improvements, the timing of that shift is still uncertain. Spot prices have increased by more than 20% since the beginning of 2018, and some interest in long-term contracting is emerging. However, uranium prices and contracting opportunities are still not where they need to be to restart the significant idled production capacity that exists, and are far below the level that would warrant investment in value-adding growth opportunities. Until we see that shift emerge, we will continue to take the necessary actions intended to shield the company from the nearer-term risks we face and that we expect will reward shareholders for their continued patience and support of our strategy to build long-term value.

Financial performance

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2018	2017	CHANGE
Revenue	**2,092**	2,157	(3)%
Gross profit	**296**	436	(32)%
Net earnings (loss) attributable to equity holders	**166**	(205)	>100%
$ per common share (diluted)	**0.42**	(0.52)	>100%
Adjusted net earnings (non-IFRS, see page 27)	**211**	59	>100%
$ per common share (adjusted and diluted)	**0.53**	0.15	>100%
Cash provided by operations (after working capital changes)	**668**	596	12%

Net earnings (loss) attributable to equity holders (net earnings (loss)) and adjusted net earnings were higher in 2018 compared to 2017, in-line with the outlook we provided. See *2018 consolidated financial results* beginning on page 26 for more information.

One of the more notable developments in 2018, was the unequivocal win in our court case with the Canada Revenue Agency (CRA) for the 2003, 2005 and 2006 tax years. In September, the Tax Court of Canada (Tax Court) ruled that our marketing and trading structure involving foreign subsidiaries and the related transfer pricing methodology used for certain intercompany uranium purchase and sale agreements were in full compliance with Canadian laws for the three tax years in question, reinstating our original filing position. In accordance with the ruling, we have made an application to the Tax Court to recover costs in the amount of $38 million. In its response to the Tax Court regarding our cost submission, CRA is claiming $9.6 million would be an appropriate award in this case. The actual award is at the discretion of the Tax Court.

In October, CRA filed a notice of appeal with the Federal Court of Appeal. In its filing, CRA did not appeal the Tax Court's finding that sham was not present, but focused on the Tax Court's interpretation and application of the transfer pricing provisions in section 247 of the Income Tax Act as the basis for its appeal. It could take up to two years to receive a decision from the Federal Court of Appeal. However, we expect the Tax Court's ruling will be upheld on appeal and believe the decision should apply in principle to subsequent years. See *Transfer Pricing Dispute* on page 31 for more information.

Our segment updates

In our uranium segment, annual production was in-line with expectations as a result of the planned suspension of production at the McArthur River/Key Lake operation. Key highlights:

- extended the production suspension at McArthur River/Key Lake for an indeterminate duration, removing 18 million pounds per year (100% basis) from the market
- annual production of 9.2 million pounds—in-line with the guidance provided in our 2018 third quarter MD&A
- quarterly production of 2.4 million pounds in the fourth quarter—65% lower than in 2017 due to the suspension of production at McArthur River/Key Lake and the change in reporting for JV Inkai
- annual purchases of 14 million pounds, including 6 million pounds on the spot market

Production in 2018 from our fuel services segment was 33% higher than in 2017, as a result of an increase in UF_6 production given the increase in demand in the market.

See *Our operations and projects* beginning on page 55 for more information.

HIGHLIGHTS			2018	2017	CHANGE
Uranium	Production volume (million lbs)		**9.2**	**23.8**	(61)%
	Sales volume (million lbs)		**35.1**	**33.6**	4%
	Average realized price	($US/lb)	**37.01**	**36.13**	2%
		($Cdn/lb)	**47.96**	**46.80**	2%
	Revenue ($ millions)		**1,684**	**1,574**	7%
	Gross profit ($ millions)		**268**	**395**	(32)%
Fuel services	Production volume (million kgU)		**10.5**	**7.9**	33%
	Sales volume (million kgU)		**11.7**	**11.5**	2%
	Average realized price	($Cdn/kgU)	**26.78**	**27.20**	(2)%
	Revenue ($ millions)		**314**	**313**	-
	Gross profit ($ millions)		**59**	**64**	(8)%

Industry prices

	2018	2017	CHANGE
Uranium ($US/lb U_3O_8)[1]			
Average annual spot market price	**24.59**	21.78	13%
Average annual long-term price	**30.38**	31.92	(5)%
Fuel services ($US/kgU as UF_6)[1]			
Average annual spot market price			
North America	**9.98**	5.26	90%
Europe	**10.32**	5.69	81%
Average annual long-term price			
North America	**14.33**	14.00	2%
Europe	**14.44**	14.04	3%

Note: the industry does not publish UO_2 prices.

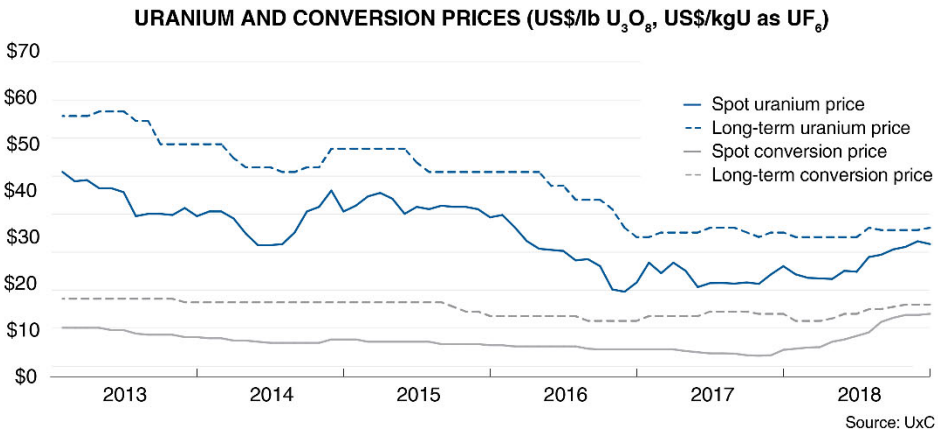
[1] Average of prices reported by TradeTech and UxC, LLC (UxC)

On the spot market, where purchases call for delivery within one year, the volume reported by UxC for 2018 was approximately 88.5 million pounds, compared to 48.1 million pounds in 2017. At the end of 2018, the average reported spot price was $27.75 (US) per pound, up $4.00 (US) from the end of 2017. During the year, the uranium spot price ranged from a high of $29.10 (US) per pound to a low of about $21.00 (US) per pound, averaging around $24.60 (US) for the year.

Long-term contracts usually call for deliveries to begin more than two years after the contract is finalized, and use a number of pricing formulas, including fixed prices escalated over the term of the contract, and market referenced prices (spot and long-term indicators) quoted near the time of delivery. The volume of long-term contracting reported by UxC for 2018 was about 89.9 million pounds compared to about 82.9 million pounds in 2017. Volumes continue to be less than the quantities consumed. The average reported long-term price at the end of the year was $32.00 (US) per pound, up $1.00 (US) from 2017.

With the uncertainty created by market access and trade policy issues facing the nuclear industry, we expect contracting in 2019 could remain largely discretionary.

Spot UF_6 conversion prices increased in both the North American and European markets, as did long-term UF_6 conversion prices.



Also of note

TEPCO contract dispute

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" had occurred because it had 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 is pursuing all its legal rights and remedies against TEPCO.

Under the agreement, TEPCO had already received and paid for 2.2 million pounds of uranium since 2014. The termination affects approximately 9.3 million pounds of uranium deliveries through 2028, worth approximately $1.3 billion in revenue to Cameco Inc., 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 accordance with the provisions in the supply agreement, an arbitration hearing to resolve the dispute took place during January of 2019. There are a number of post hearing steps and we expect they will be completed by mid-May, 2019. The timing of the final decision will be dependent on how long the arbitrators deliberate following receipt of post-hearing submissions. The arbitration proceedings are subject to a confidentiality order which limits the information we are able to disclose.

We are seeking damages of approximately $700 million (US) plus interest and legal costs.

In this MD&A, our 2019 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 6, 2019, we had:

- 395,792,732 common shares and one Class B share outstanding
- 8,800,624 stock options outstanding, with exercise prices ranging from $11.32 to $39.53

DIVIDEND

In 2018, our board of directors declared a dividend of $0.08 per common share, which was paid December 14, 2018. The decision to declare an annual dividend by our board will be based on our cash flow, financial position, strategy and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

Market overview and developments

Cautiously optimistic

The uranium market has improved significantly relative to a year ago. There have been substantial production cuts, cuts to some secondary supplies, reductions in producer inventories, and an increase in demand for uranium in the spot market from producers and financial players. These actions have helped remove excess material from the spot market and have put upward pressure on the uranium spot price. At the end of the year, the spot price was up about 17% compared to the end of 2017. The market has finally reached the point where, on an annual basis, consumption has returned to pre-2011 levels, and some interest in long-term contracting is emerging.

Despite these improvements in the uranium market, we believe there is still a need for some caution in the near term. It is important to remember that much of the supply that has been removed from the market is a result of supply curtailment not supply destruction. There is plenty of idle tier-one production and tier-one expansion capabilities, as well as idle tier-two production and expansion capabilities. And, we can't lose sight of material sitting with financial players. This is capacity that can come back to the market relatively quickly. As a result, new supply poses a significant risk to the uranium market recovery. Today, we believe even the promise of new supply could create a headwind and put downward pressure on uranium prices.

A LOT OF MOVING PARTS

While the reason for continued caution is the same as last year (a lack of acceptable long-term contracting opportunities) the cause has changed. Previously, the lack of acceptable contracting opportunities was caused by an oversupplied uranium spot market, which led to complacency and discretion. However, there have been a number of significant supply and demand developments, which make for a lot of moving parts in our industry. These moving parts have shifted market sentiment to one of uncertainty and confusion, resulting in some market paralysis while participants try to digest the implications of the changing dynamics.

Supply is not guaranteed

Economic realities continue to have an impact on the security of supply in our industry. Not only does it not make sense to invest in future primary supply – we have seen additional existing primary supply shutdown and not just by the higher-cost producers. Even the lowest-cost producers are deciding to preserve long-term value by leaving uranium in the ground. Adding to security of supply concerns today are the market access and trade policy issues facing the nuclear industry. These market access and trade policy issues highlight the importance of origin in an industry where almost 90% of primary production comes from countries that consume little-to-no uranium, and 90% of uranium consumption occurs in countries that have little or no primary production. Furthermore, the issues highlight the fact that nearly 70% of primary production is in the hands of state-owned enterprises, after taking into account all of the cuts to primary production that have occurred. Some of the more significant supply developments are:

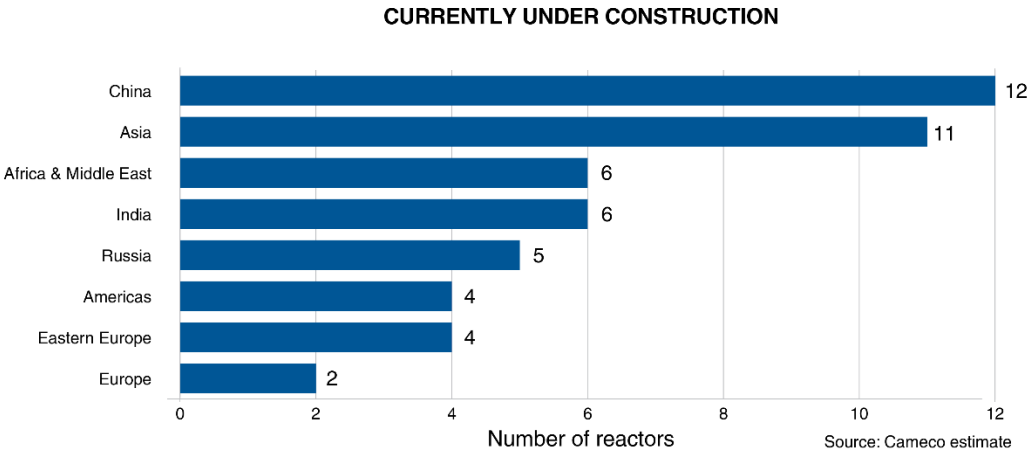
- Our 2018 decision, along with our partner, Orano, to extend the production suspension at McArthur River/Key Lake for an indeterminate duration, removing 18 million pounds annually from the market, and adding to the production curtailments at Rabbit Lake and in the US in 2016.
- In the US, which has the largest fleet of nuclear reactors in the world, an investigation was launched by the Department of Commerce in July of 2018 under section 232 of the Trade Expansion Act. The investigation is to determine whether the quantity and circumstances of foreign uranium imports into the US threaten to impair national security.
- In March 2018, the US Department of Energy suspended its remaining excess uranium sales for the fiscal year, removing about 1.6 million pounds of secondary supply from the market. Legislation has been approved that extends the program suspension for the 2019 fiscal year as well, which is expected to result in a reduction of available secondary supplies of about 3 million pounds.
- The review of the Russian Suspension Agreement, which imposes annual quotas on imports of Russian uranium into the US, and expires at the end of 2020.

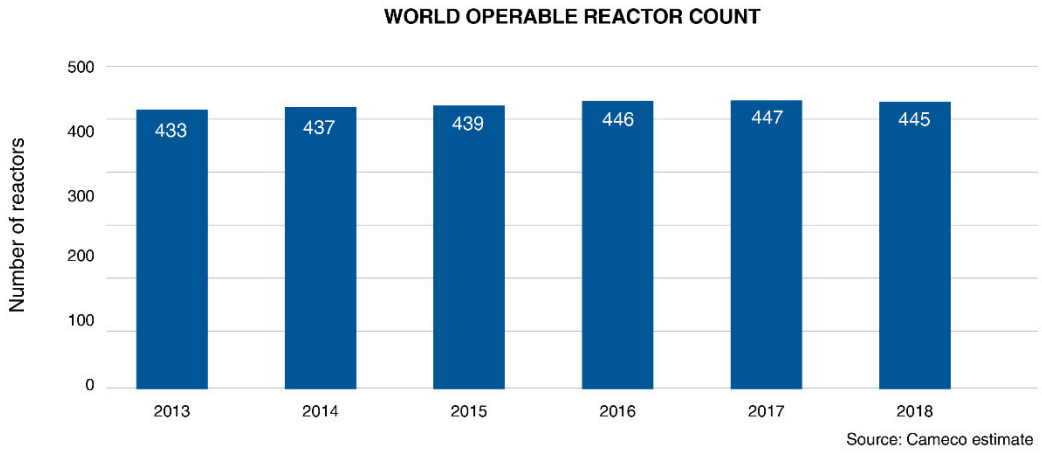
- Kazatomprom announced its intent to reduce 2018 production to about 56 million pounds, about 8% less than its production in 2017, and during the year sold inventory in excess of 8 million pounds to Yellow Cake plc's uranium fund. And, in conjunction with its initial public offering (IPO), it stated its intent to shift to a market-centric operator, as opposed to a production-led operator.
- The recapitalization of Paladin and its subsequent decision to put its Langer-Heinrich operation in Namibia on care and maintenance.
- Reports that the Husab mine in Namibia faced several technical and operational challenges in its rampup of production.
- Rio Tinto's announcement that it has entered into a binding agreement with China National Uranium Corporation Limited to sell its entire 68.62% share in the Rossing mine in Namibia.
- The May 2019 expiration of the contract with unionized employees at Orano's McClean Lake mill, which poses a risk to production plans at Cigar Lake if an agreement cannot be reached and there is a labour dispute.

Demand has recovered and is growing

The demand gap left by forced and premature nuclear reactor shut-downs since March of 2011 has largely been filled. And, with eight new reactors beginning commercial operation in 2018, 50 reactors under construction, and many more planned, demand is growing. This growth is largely occurring in Asia and the Middle East, however it is being partially offset by early reactor retirements, plans for reduced reliance on nuclear, or phase-out policies in other regions. There is mixed demand news for the nuclear industry. Some of the more significant developments are:

- The increased demand from financial players who are interested in holding physical uranium, including the IPO by Yellow Cake plc. UxC estimates financial players purchased around 14.5 million pounds of uranium on the spot market in 2018.
- The increased demand for uranium on the spot market by producers, including us, to replace curtailed production in order to meet delivery commitments. Over 11 million pounds were purchased in the spot market by producers in 2018, triple the volume of 2017.
- In China, the fastest growing nuclear energy market in the world, six reactors, including the world's first AP1000 and EPR reactors, began commercial operation in 2018. Although there has been a slowdown in construction starts, we believe the startup and regulatory approval of this new generation of reactors will clear the path for additional new build projects in that country.
- In the US, news was mixed. The owners of the Vogtle 3 and 4 nuclear construction project voted to proceed, and several states including Illinois, New York, New Jersey, and Connecticut enacted incentives to support the continued operation of nuclear plants. However, several planned reactor shutdowns were also announced.
- In Taiwan, 60% of the ballots cast in a November referendum rejected the government's plan to phase-out nuclear by 2025.
- A number of Japanese utilities have now successfully navigated through the new, rigorous safety inspection process, with nine reactors operating and an additional 18 reactors at various stages in the restart approval process. The Japanese government approved a new basic energy plan confirming that nuclear power will play a significant role in its energy strategy.
- In India, the government announced nine reactors were under construction and were to be completed by 2025. Another 12 reactors have obtained administrative and financial approval and the government is targeting startup by 2031.
- Poland's draft energy policy plans for its first nuclear power plant to be in operation by 2033 and for total installed nuclear capacity to reach 6000 to 9000 MWe by 2040, representing 10% of its electricity supply.
- In France, the long-term energy strategy plans for a reduction in nuclear power's share of its energy mix to 50% by 2035, resulting in the eventual shutdown of 14 nuclear reactors. The closures are subject to its ability to ensure the security of its electricity supply and the evolution of the transition of its energy mix to renewables. The plan did maintain the option for future construction of new reactors.
- In South Korea, the government announced the early retirement of one of its nuclear reactors and cancelled plans for four new units. Construction on five units is still proceeding.
- A number of other countries, such as UAE, Belarus, Bangladesh, Turkey and Saudi Arabia, continue with their nuclear energy construction programs and plans.





Growing support from proponents of clean air and climate change

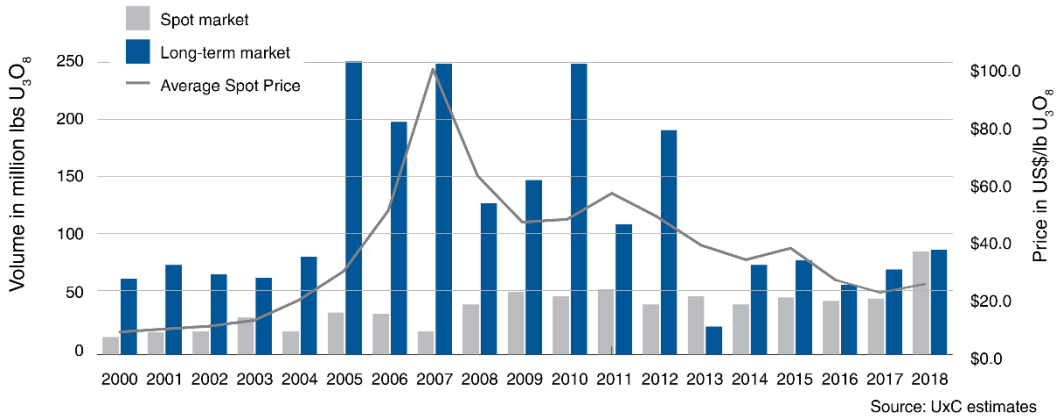
In addition to the market dynamics discussed above, there is a growing acknowledgment that adherence to clean air and global climate change goals requires a material dedication to all non-emitting energy sources, including nuclear. World electricity demand will grow because of the positive impact it has on quality of life, however this cannot occur at the expense of clean air. The director of the Sustainable Energy Division of the United Nations Economic Commission for Europe (UNECE) has stated that the search for a solution to climate change must include a discussion of nuclear power, and the UNECE included it on its annual conference agenda for the first time. In addition, the United Nations Intergovernmental Panel on Climate Change special report made it clear that nuclear energy is a necessary part of an effective global response to achieving climate change goals. The Union of Concerned Scientists, who has traditionally not supported nuclear energy, has also acknowledged that in order to combat climate change, all zero carbon options have to be considered, including nuclear.

OPPORTUNITIES FOR THOSE WHO CAN WAIT

UxC reports that over the last five years only 396 million pounds have been locked-up in the long-term market, while over 831 million pounds have been consumed in reactors. We remain confident that utilities have a growing gap to fill.

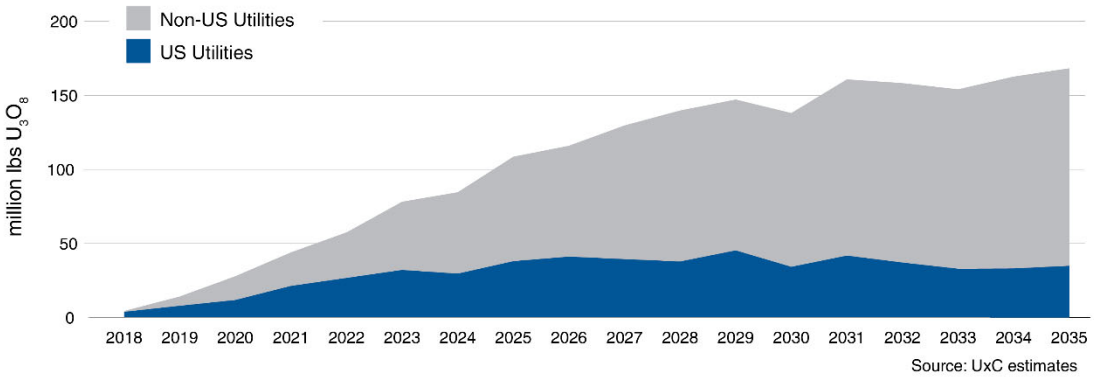
Like other commodities, the uranium industry is cyclical. History demonstrates that in general, when prices are rising and high, uranium is perceived as scarce, and a lot of contracting activity takes place. The heavy contracting that takes place during price runs, drives investment in higher-cost sources of production. Once that production is in the market, it tends to stay in the market longer than is economically rational, creating the perception that uranium is abundant and always will be, and prices decline. When prices are declining and low, like we have seen over the past seven years, there is no perceived urgency to contract, and contracting activity and investment in new supply drops off. 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.

URANIUM CONTRACTING VOLUMES AND PRICE HISTORY



We believe the current backlog of long-term contracting initially created by the low-price environment, and now by the uncertainty and confusion in our industry, presents a substantial opportunity for commercially motivated suppliers like us that can weather the low-price part of the cycle. As a low-cost producer, we plan our operations with these price cycles in mind.

UTILITY UNCOVERED REQUIREMENTS (2018 - 2035)



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.

UxC estimates that cumulative uncovered requirements are about 1.9 billion pounds to the end of 2035. The longer the recovery of the long-term market is delayed, the less certainty there will be about the availability of future supply to fill growing demand. Ultimately, we expect the current market uncertainty to give way to increasing concerns about the security of future supply.

As utilities' uncovered requirements grow, annual supply declines, demand for uranium from producers and financial players increases, and with trade policy potentially restricting access to some markets, we believe the pounds available in the spot market will not be enough to satisfy the growing backlog of long-term demand. As a result, we expect there will be increased pressure for a return to long-term contracting on acceptable terms.

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 energy 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 becoming less certain as a result of curtailments, lack of investment, and market access and trade policy issues, 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 and is intended to ensure we have adequate protection under our contract portfolio, while maintaining exposure to the rewards that come from having uncommitted, low-cost supply to deliver into a strengthening market.

Our strategy

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 populations and growing electricity demand. Nuclear energy is an option that can provide the power needed, not only reliably, but also safely and affordably, and in a way that avoids adding to the air pollution that plagues so many countries with developing economies.

Tier-one focus

We are a pure-play nuclear fuel investment, focused on providing a clean source of energy, and taking advantage of the long-term growth we see coming in our industry. Our strategy is to focus on our tier-one assets and profitably produce at a pace aligned with market signals in order to preserve the value of those assets and 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. In accordance with market conditions, and to mitigate risk, we will evaluate the optimal mix of our production, inventory and purchases in order to satisfy our contractual commitments and in order to return the best value possible. We will not produce from our tier-one assets to sell into an oversupplied spot market. During a prolonged period of uncertainty, this could mean leaving our uranium in the ground. As conditions improve, we expect to meet rising demand with production from our best margin operations.

In light of today's lingering uncertainty as to how long the weak market conditions will persist, we are focused on preserving the value of our lowest cost assets, on maintaining a strong balance sheet, on protecting and extending the value of our contract portfolio and on efficiently managing the company in a low price environment. We have undertaken a number of deliberate and disciplined actions. In 2018, these actions resulted in:

- lower capital expenditures
- lower direct administration and exploration costs
- increased care and maintenance costs
- accumulation of significant cash on our balance sheet

Consistent with our actions, we reduced our 2018 dividend to $0.08 per share, which was paid on December 14, 2018. In addition, we have extended the production shutdown at our McArthur River/Key Lake operation for an indeterminate duration, removing 18 million pounds of uranium annually from the market. Some of our actions have a cost in the short term, and we must weigh these costs against the value we expect they will generate over the long term. Accordingly, we will adjust our actions with market signals with the intent of being able to self-manage risk, and to ensure our tier-one assets are available to us in a market that values them appropriately.

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.

OTHER FUEL CYCLE INVESTMENTS

We continue to explore other opportunities within the nuclear fuel cycle. In particular, we are interested in the second largest value driver of the fuel cycle, enrichment. Having operational control of uranium production, conversion, and enrichment facilities would offer operational synergies that could enhance profit margins.

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 and mitigate risk
- allow us to execute on our dividend while ensuring it is appropriately aligned with the cyclical nature of our earnings

To deliver value, free cash flow must be productively reinvested in the business or returned to shareholders, which requires good execution and disciplined allocation. Our decisions are based on the run rate of our business, not one-time events. Cash on our balance sheet that exceeds value-adding growth opportunities and/or is not needed to self-manage risk should be returned to shareholders.

We 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.

Our capital allocation decisions will continue to pivot on what the market is providing. With the continued market uncertainty we are facing, our ongoing dispute with CRA, the pending decision in our TEPCO arbitration, and our $500 million debenture maturing in September 2019, the objective of our capital allocation is to maximize cash flow, while maintaining our investment-grade rating through close management of our balance sheet metrics.

With the metrics that inform an investment-grade rating in mind, and in this period of low uranium prices, we have taken steps to improve margin and cash flow by:

- responsibly managing our sources of supply thereby preserving the value of our tier-one assets, and which, in 2018, resulted in the reduction of inventory and the release of significant working capital
- restructuring our activities to reduce our operating, capital, and general and administrative spending
- reducing our annual dividend from $0.40 per share to $0.08 per share in 2018

As a result, we expect we will be in a position to retire our $500 million debenture maturing in 2019.

REINVESTMENT

If a decision is made to reinvest capital in sustaining, capacity replacement, or growth, all opportunities are ranked and only those that meet the required risk-adjusted return criteria are considered for investment. We also must identify, at the corporate level, the expected impact on cash flow, earnings, and the balance sheet. All project risks must be identified, including the risks of not investing. Allocation of capital only occurs once an investment has cleared these hurdles.

This may result in some opportunities being held back in favour of higher return investments, and should allow us to generate the best return on investment decisions when faced with multiple prospects, while also controlling our costs. If there are not enough good investment prospects internally or externally, this may result in residual investable capital, which we would then consider returning directly to shareholders.

While we are seeing some improvement in the spot market and we are beginning to get more clarity on our litigation risks, we have not yet seen the market transition needed to restart our idled production capacity. Therefore, until we see that transition, our focus for 2019 through 2021 will continue to be primarily on sustaining and capacity replacement capital to ensure we have the ability to meet our contractual commitments and to maintain optionality longer term. In addition, if we get clarity on our CRA or TEPCO disputes, which generate a one-time cash infusion, we will focus on the debt portion of our ratings metrics. This may mean an even greater emphasis on reducing the debt on our balance sheet. However, if the market does begin to transition and higher uranium prices are beginning to flow through our contract portfolio, and we are able to sign acceptable long-term contracts, the earnings portion of our rating metrics are expected to improve. In that scenario, reducing debt would not be the priority. Our priority would be to invest in restarting our idled tier-one assets, and if warranted, turn to value-adding growth opportunities.

RETURN

We believe in returning cash to shareholders, but are also focused on protecting the company by maintaining our investment-grade rating, and rewarding those shareholders who understand and support our strategy to build long-term value. If we have excess cash and determine the best use is to return it to shareholders, we can do that through a share repurchase or dividend—an annual dividend, one-time supplemental dividend or a progressive dividend. When deciding between these options, we consider a number of factors, including the nature of the excess cash (one time or cash generated by our business operations), growth prospects for the company, and growth prospects for the industry.

Share buyback: If we were generating excess cash while there were few or no growth prospects for the company or the industry, then a share buyback might make sense. However, our current view is that the long-term fundamentals for Cameco and the industry remain strong.

Dividend: The amount and type of dividend paid, annual, progressive or one-time supplemental is evaluated by our board of directors with careful consideration of our cash flow, financial position, strategy, and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

Marketing framework – balanced contract portfolio

As with our corporate strategy and approach to capital allocation, the purpose of our marketing framework is to deliver value. Our approach is to secure a solid base of earnings and cash flow by maintaining a balanced contract portfolio that optimizes our realized price.

We evaluate our strategy in the context of our market environment and continue to adjust our actions in accordance with our marketing framework:

- First, we will not produce from our tier-one assets to sell into an oversupplied spot market. We will not produce from these assets unless we can deliver our tier-one pounds under long-term contracts that provide an acceptable rate of return on these assets for our owners.
- Second, we do not intend to build up an inventory of excess uranium. Excess inventory serves to contribute to the sense that uranium is abundant and creates an overhang on the market, and it ties up working capital on our balance sheet.
- Third, in addition to our committed sales, we will capture demand in the market where we think we can obtain value. We will take advantage of opportunities the market provides, where it makes sense from an economic, logistical and strategic point of view. Those opportunities may come in the form of spot, mid-term or long-term demand, and will be additive to our current committed sales.
- Fourth, once we capture demand, we will decide how to best source material to satisfy that demand. Depending on the timing and volume of our production, purchase commitments, and our inventory volumes, this means we will be active buyers in the market in order to meet our demand obligations.
- And finally, in general, if we choose to source material to meet demand by purchasing it, we expect the price of that material will be more than offset by the leverage to market prices in our sales portfolio over a rolling 12-month period.

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

Ultimately, our goal is to protect and extend the value of our contract portfolio on terms that recognize the value of our assets and provide adequate protection when prices go down and allow us to benefit when prices rise. We believe using this framework will allow us to create long-term value for our shareholders. Our focus will continue to be on maximizing cash flow, while maintaining our investment-grade rating so we can self-manage risk, including being in a position to retire our $500 million debenture maturing in 2019.

LONG-TERM CONTRACTING

Uranium is not traded in meaningful quantities on a commodity exchange. Utilities have historically bought the majority of their uranium and fuel services products under long-term contracts 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 general, we are always active in the market, buying and selling uranium when it is beneficial for us and in support of our long-term contract portfolio. We undertake activity in the spot and term markets prudently, looking at the prices and other business factors to decide whether it is appropriate to purchase or sell into the spot or term market. Not only is this activity a source of profit, it gives us insight into underlying market fundamentals.

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

The objectives of our contracting strategy are to:

- maximize realized price while reducing volatility of our future earnings and cash flow
- focus on meeting the nuclear industry's growing annual 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 approach has allowed us to realize prices higher than the market prices during periods of weak uranium demand, and we expect it will enable us to realize increases linked to higher market prices in the future.

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

Market-related contracts for uranium: 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, which are usually 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

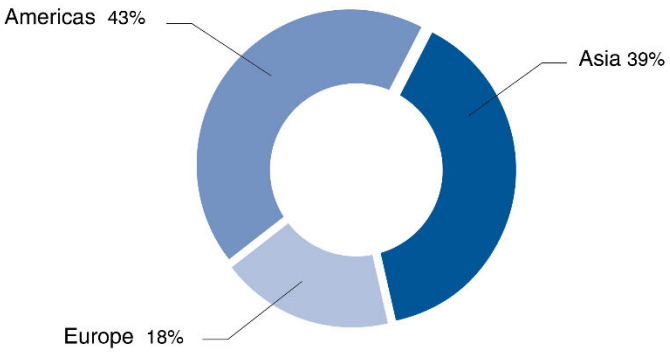
We work with our customers to optimize the value of our existing contract portfolio. In cases where a customer is seeking relief due to a challenging policy, operating, or economic environment, we evaluate their specific circumstances and assess their long-term sustainability. Where we deem the customer's 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, in a low price environment, we may blend 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.

CONTRACT PORTFOLIO STATUS

We have commitments to sell over 125 million pounds of U_3O_8 with 33 customers worldwide in our uranium segment, and over 40 million kilograms as UF_6 conversion with 28 customers worldwide in our fuel services segment. The annual average sales commitments over the next five years in our uranium segment is around 20 million pounds, with commitment levels in 2019 and 2020 higher than in 2021 through 2023.

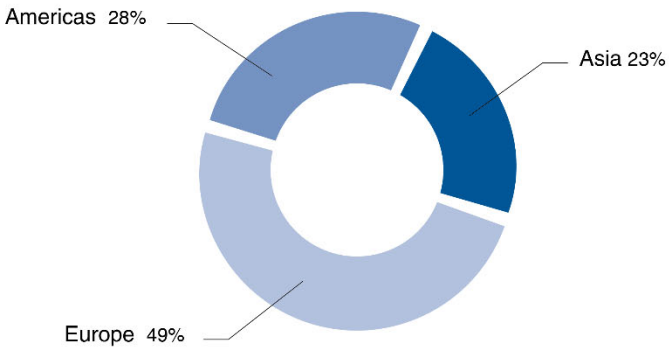
Customers – U_3O_8:
Five largest customers account for 56% of commitments

COMMITTED U_3O_8 SALES BY REGION



Customers – UF_6 conversion:
Five largest customers account for 61% 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 our JV Inkai agreement, under long-term agreements and in the spot market
- our existing inventory

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

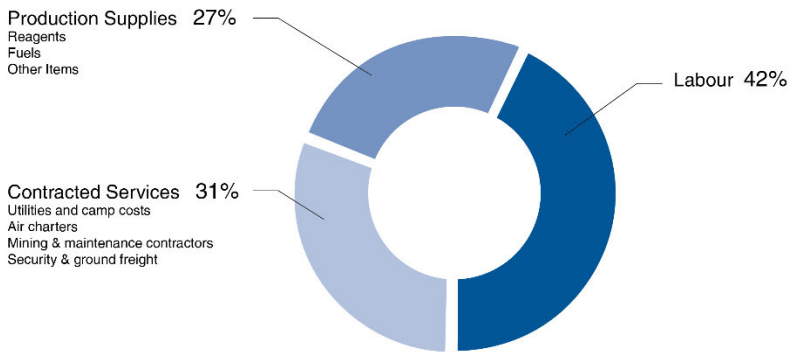
- the level of sales commitments in our long-term contract portfolio
- our production volumes
- purchases under existing and/or new arrangements
- discretionary use of inventories
- market opportunities

Managing our costs

PRODUCTION COSTS

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

2018 URANIUM OPERATING COSTS BY CATEGORY



Given the current market dynamics, in 2019, our only operating property will be Cigar Lake. Our McArthur River/Key Lake, Rabbit Lake, and US operations are currently on care and maintenance. While we have these operations on standby, our cash production costs will reflect the operating cost of mining and milling our share of Cigar Lake mineral reserves, which is estimated to be between $15 and $16 per pound over the entire life-of-mine.

Operating costs in our fuel services segment are mainly fixed. In 2018, labour accounted for about 52% of the total. The largest variable operating cost is for zirconium, followed by energy (natural gas and electricity), and anhydrous hydrogen fluoride.

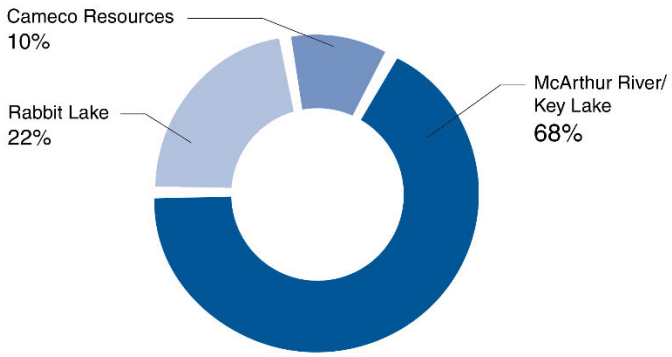
CARE AND MAINTENANCE COSTS

In 2019, we expect to incur between $130 million and $160 million in care and maintenance costs related to the suspension of production at our McArthur River/Key Lake mine and mill, Rabbit Lake mine and mill, and US operations. The largest proportion of these costs will be incurred at McArthur River/Key Lake.

Consistent with our tier-one strategy, we expect that production at McArthur River/Key Lake will be the first of our operations to restart once we see the appropriate market signals. As a result, we are focused on asset reliability, and ensuring we have the resources critical for a restart. This means higher care and maintenance costs compared to Rabbit Lake and in the US. Our Rabbit Lake and US operations are higher-cost, and with plenty of idle tier-one capacity and tier-one expansion capacity globally that can come back on line relatively quickly, the restart horizon is less certain.

While Rabbit Lake and our US operations are in standby, we will continue to evaluate our options in order to minimize costs.

CARE AND MAINTENANCE COSTS



PURCHASES AND INVENTORY COSTS

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

To meet our delivery commitments, we make use of our mined production, inventories, purchases under long-term contracts, and purchases we make on the spot market. We also make purchases on the spot and long-term market where it is beneficial to do so. In 2019, the price for the majority of our purchases will be quoted at the time of delivery.

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

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.

We have taken a number of deliberate and disciplined actions to reduce supply and streamline operations. Some of these actions come with a cost in the near term, like care and maintenance costs, but we expect the benefit over the long term will far outweigh those costs.

We believe our actions will help shield the company from the nearer term risks we face and will reward shareholders for their continued patience and support of our strategy to build long-term value.

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.

Sustainable development: A key part of our strategy, reflecting our values

Social responsibility, safety of our workforce and the public, as well as environmental protection are top priorities for us. In fact, 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. Sustainability 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

Given this, we have sustainable development principles and practices embedded throughout our organization, from our overall corporate strategy to day-to-day operations.

Consequently, we recognize that changes in our operations and support functions, including the suspension of production at Rabbit Lake and curtailment at the US operations in 2016, the suspension of production at our McArthur River/Key Lake operation for an indeterminate duration, the reduction of the workforce at our northern Saskatchewan operations and at our corporate office, and the changes made to the way our global marketing activities are organized all have a significant impact on the communities where we operate. We regret the negative impact that these carefully deliberated decisions have on affected employees and other stakeholders. However, these actions are deemed necessary for the long-term health of the company in a uranium market that continues to be weak. 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.

2018 Highlights:

- best safety performance in the history of the company as measured by Total Recordable Incident Rate (TRIR) and Lost Time Incident rate. However, our TRIR performance did not meet the improvement target set for 2018.
- several operations reached significant safety milestones, including the Blind River refinery and the Crow Butte operation passing 12 and 11 years respectively without a lost time incident and several other facilities continued to increase their record of days without a lost time accident
- continued low average dose of radiation to workers, including the Cigar Lake operation as it sustained production at licensed capacity
- continued improvement of safety systems and performance for support groups, such as corporate facilities

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 continually improve our performance.

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.

2018 Highlights:

- as part of Vision in Motion, we began shipping contaminated soil and legacy low level radiative waste stored at the Port Hope conversion facility to the long-term waste management facility
- remained a top performer under Canada’s Fisheries Act Metal and Diamond Mining Effluent Regulations with effluent performance well below regulatory limits
- sustained Cigar Lake at full production without exceeding an environmental limit or having a significant environmental incident
- continued efforts to reduce low level radioactive waste stored at our fuel services division

- implemented Canadian Standards Association (CSA) waste management standards at our fuel services division facilities
- continued efforts to systematically improve energy conservation and efficiency at both our fuel services and Saskatchewan facilities
- continued industry-leading research developing enhanced groundwater restoration techniques that can be applied 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. We are a leading employer of indigenous peoples in Canada, and a five-time Gold award winner through the Progressive Aboriginal Relations program as judged by the Canadian Council for Aboriginal Business. Since 2004, we have procured nearly $3.8 billion in services from local suppliers in northern Saskatchewan. These efforts are critical to obtaining and maintaining the necessary regulatory approvals.

2018 Highlights:

- over $120 million in procurement from locally owned northern Saskatchewan companies (89% of total)
- At December 31, in northern Saskatchewan, 319 of our employees were Residents of Saskatchewan's North (RSN) (49.7% of total), compared to 603 RSN employees at the end of 2017 (49.6% of total). While the number of employees declined as a result of the suspension of production at our McArthur River/Key Lake operation for an indeterminate duration, we maintained the proportion of RSN.
- Corporate Knights ranked Cameco as one of Canada's top five Corporate Citizens in 2018

OUTSTANDING FINANCIAL PERFORMANCE

Long-term financial stability and profitability are essential to our sustainability as a company. We believe that sound governance is the foundation for strong corporate performance.

2018 Highlights:

- continued to achieve an average realized price that outperformed the market
- continued to take action to decrease costs, including lower capital expenditures, and lower direct administration and exploration costs
- unequivocal win in our court case with CRA for the 2003, 2005 and 2006 tax years

Our governance practices

We believe that sound governance is the foundation for strong corporate performance. Our board of directors is responsible for overseeing management and our strategy and business affairs. Its goal is to ensure we operate as a successful business, optimizing financial returns while effectively managing risk.

In 2018, our board consisted of 10 directors who were selected based on their collective ability to contribute expertise to the broad range of issues the board faces when carrying out its responsibilities in overseeing our business and affairs.

WHAT WE DO:

- Independent board – 90% of the directors in 2018 were independent
- Non-executive chair leads the board – we maintain separate chair and CEO positions and have had a non-executive, independent chair of the board since 2003
- Share ownership – we require our directors and executives to own shares, or have an equity interest in Cameco to align their interests with those of our shareholders and share ownership is disclosed
- Majority voting for directors – the board adopted a majority voting policy in 2006
- Strong risk oversight - the board and committees oversee our risk management program and strategic, financial and operational risks
- Formal assessment process – the directors assess the board, committees and individual directors' performance
- Independent third-party review – the director assessment process is augmented by a third-party review every three years

- Serving on other boards – we limit the number of other public company boards our directors can serve on, and serve on together
- Director recruitment and board succession – we have term limits and a retirement policy for directors
- Diverse board – our board has a diverse mix of skills, background and experience and 30% of directors in 2018 were female
- Independent advice – board committees have full authority to retain independent advisors to help them carry out their duties and responsibilities
- Code of conduct and ethics – directors, officers and employees must comply with our code of conduct and confirm their compliance every year
- Long-standing shareholder engagement – we communicate openly with shareholders and other stakeholders
- Say on pay – we have held an advisory vote on our approach to executive compensation every year since 2010

More information about our shareholder commitment, our governance principles, how our board operates and profiles of each of our directors can be found in our most recent management proxy circular and on our website at cameco.com/about/board-of-directors.

MONITORING AND MEASUREMENT

We take the integration of sustainable development and measurement of our performance seriously. We produced our first Sustainable Development (SD) Report in 2005, using the Global Reporting Initiative's Sustainability Framework (GRI). We use GRI as our sustainability report card to our stakeholders. It tells them how we are 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 have met, exceeded or struggled with them, and how we plan to do better. We updated the GRI indicator data in 2018, and will update all indicators again in 2019.

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.

All of our North American operations are now ISO 14001:2015 certified under a single corporate certification.

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.

2018 OBJECTIVES[1]	TARGET	RESULTS
OUTSTANDING FINANCIAL PERFORMANCE		
Earnings measure	Achieve targeted adjusted net earnings.	• adjusted net earnings was above the maximum target
Cash flow measure	Achieve cash flow from operations (after working capital changes).	• cash flow from operations was slightly below the target
SAFE, HEALTHY AND REWARDING WORKPLACE		
Workplace safety measure	Strive for no injuries at all Cameco-operated sites. Maintain a long-term downward trend in combined employee and contractor injury frequency and severity, and radiation doses.	• best safety performance in the history of the company, however TRIR did not achieve the improvement target set for 2018 • completion of corrective actions exceeded the target • average radiation doses remained low and stable
CLEAN ENVIRONMENT		
Environmental performance measures	Achieve divisional environmental aspect improvement targets.	• performance was within the targeted range • there were no significant environmental incidents in 2018
SUPPORTIVE COMMUNITIES		
Stakeholder support measure	Implement Collaboration Agreements by supporting northern business development opportunities and build corporate reputation.	• sourcing of northern services from Northern Saskatchewan vendors was above the target

[1] Detailed results for our 2018 corporate objectives and the related targets will be provided in our 2019 management proxy circular prior to our Annual Meeting of Shareholders on May 7, 2019.

2019 objectives

OUTSTANDING FINANCIAL PERFORMANCE
• Achieve targeted financial measures focused on controlling costs and generating cash.
SAFE, HEALTHY AND REWARDING WORKPLACE
• Improve workplace safety performance at all sites.
CLEAN ENVIRONMENT
• Improve environmental performance at all sites.
SUPPORTIVE COMMUNITIES
• Build and sustain strong stakeholder support for our activities.

Financial results

This section of our MD&A discusses our performance, financial condition and outlook for the future.

2018 consolidated financial results

In this MD&A, our 2019 financial outlook and other disclosures relating to our contract portfolio are presented on a basis which excludes the agreement with TEPCO, which is under dispute. See *Also of Note* on page 8.

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2018	2017	2016	CHANGE FROM 2017 TO 2018
Revenue	**2,092**	2,157	2,431	(3)%
Gross profit	**296**	436	463	(32)%
Net earnings (loss) attributable to equity holders	**166**	(205)	(62)	>100%
$ per common share (basic)	**0.42**	(0.52)	(0.16)	>100%
$ per common share (diluted)	**0.42**	(0.52)	(0.16)	>100%
Adjusted net earnings (non-IFRS, see page 27)	**211**	59	143	>100%
$ per common share (adjusted and diluted)	**0.53**	0.15	0.36	>100%
Cash provided by operations (after working capital changes)	**668**	596	312	12%

Net earnings

Our net earnings normally trend with revenue, but, in recent years, have been significantly influenced by impairment charges due to the continued weakness in the uranium market.

The following table shows what contributed to the change in net earnings in 2018 compared to 2017 and 2016.

($ MILLIONS)		2018	2017	2016
Net earnings (losses) - previous year		**(205)**	**(62)**	**65**
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	Higher (lower) sales volume	18	29	(16)
	Higher (lower) realized prices ($US)	40	(222)	(129)
	Foreign exchange impact on realized prices	1	(36)	30
	Lower (higher) costs	(186)	180	(49)
	change – uranium	(127)	(49)	(164)
Fuel services	Higher (lower) sales volume	1	(5)	(4)
	Higher (lower) realized prices ($Cdn)	(5)	21	25
	Higher costs	(1)	(15)	(19)
	change – fuel services	(5)	1	2
Other changes				
Lower (higher) administration expenditures		21	44	(20)
Lower (higher) impairment charges		358	4	(147)
Lower (higher) exploration expenditures		10	13	(2)
Change in reclamation provisions		(60)	(34)	34
Lower (higher) loss on disposal of assets		5	16	(21)
Change in gains or losses on derivatives		(137)	22	315
Change in foreign exchange gains or losses		49	(17)	(65)
Change in earnings from equity-accounted investments		32	-	1
Gain on sale of interest in Wheeler River Joint Venture in 2018		17	-	-
Gain on restructuring of JV Inkai in 2018		49	-	-
Gain on customer contract restructuring in 2018		6	-	-
Sale of exploration properties in 2018		7	-	-
Gain on customer contract settlements in 2016		-	(59)	59
Reversal of tax provision related to CRA dispute		61	-	-
Change in income tax recovery or expense		62	(91)	(49)
Other		23	7	(70)
Net earnings (losses) - current year		**166**	**(205)**	**(62)**

Impairment charges

In the third quarter of 2017, we made changes to the way our global marketing activities were organized. The changes significantly impacted the marketing activities historically performed by NUKEM. As a result, we recognized an impairment charge for the full carrying value of goodwill of $111 million.

During the fourth quarter of 2017, we announced our plan to temporarily suspend production at the McArthur River/Key Lake operation in 2018. As a result, we re-evaluated the project to complete the new calciner at Key Lake, which was undertaken to allow for increased production. Given the production suspension, market conditions, and that we determined the existing calciner had sufficient capacity to reliably meet our ongoing production requirements, it was determined that no further investment would be made to complete the project. As a result, we recognized an impairment charge related to the new calciner of $55 million.

Also during the fourth quarter of 2017, we recorded a $184 million write down of our US assets. Due to the continued weakening of the uranium market and the reduction in mineral reserves, we concluded that it was appropriate to recognize an impairment charge for these assets.

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 NUKEM purchase price inventory recovery, impairment charges, reclamation provisions for our Rabbit Lake and US operations, which have been impaired, the gain on restructuring of JV Inkai, 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 2018, 2017 and 2016.

($ MILLIONS)	2018	2017	2016
Net earnings (loss) attributable to equity holders	**166**	(205)	(62)
Adjustments			
Adjustments on derivatives	**65**	(108)	(130)
NUKEM purchase price inventory recovery	**-**	-	(6)
Impairment charges	**-**	358	362
Reclamation provision adjustments	**60**	-	(34)
Gain on restructuring of JV Inkai	**(49)**	-	-
Income taxes on adjustments	**(31)**	14	13
Adjusted net earnings	**211**	59	143

The following table shows what contributed to the change in adjusted net earnings (non-IFRS measure, see above) in 2018 compared to the same period in 2017 and 2016.

($ MILLIONS)		2018	2017	2016
Adjusted net earnings - previous year		**59**	**143**	**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	Higher (lower) sales volume	18	29	(16)
	Higher (lower) realized prices ($US)	40	(222)	(129)
	Foreign exchange impact on realized prices	1	(36)	30
	Lower (higher) costs	(186)	180	(49)
	change – uranium	(127)	(49)	(164)
Fuel services	Higher (lower) sales volume	1	(5)	(4)
	Higher (lower) realized prices ($Cdn)	(5)	21	25
	Higher costs	(1)	(15)	(19)
	change – fuel services	(5)	1	2
Other changes				
Lower (higher) administration expenditures		21	44	(20)
Lower (higher) exploration expenditures		10	13	(2)
Lower (higher) loss on disposal of assets		5	16	(21)
Change in gains or losses on derivatives		36	44	19
Change in foreign exchange gains or losses		49	(17)	(65)
Change in earnings from equity-accounted investments		32	-	-
Gain on sale of interest in Wheeler River Joint Venture in 2018		17	-	-
Gain on customer contract restructuring in 2018		6	-	-
Sale of exploration properties in 2018		7	-	-
Gain on customer contract settlements in 2016		-	(59)	59
Reversal of tax provision related to CRA dispute		61	-	-
Change in income tax recovery or expense		17	(90)	63
Other		23	13	(72)
Adjusted net earnings - current year		**211**	**59**	**143**

Average realized prices

		2018	2017	2016	CHANGE FROM 2017 TO 2018
Uranium[1]	$US/lb	**37.01**	36.13	41.12	2%
	$Cdn/lb	**47.96**	46.80	54.46	2%
Fuel services	$Cdn/kgU	**26.78**	27.20	25.37	(2)%

[1] Average realized foreign exchange rate ($US/$Cdn): 2018 – 1.30, 2017 – 1.30 and 2016 – 1.32.

Revenue

The following table shows what contributed to the change in revenue for 2018.

($ MILLIONS)	
Revenue – 2017	**2,157**
Uranium	
Higher sales volume	69
Higher realized prices ($Cdn)	41
Change in intersegment sales	4
Fuel services	
Higher sales volume	6
Lower realized prices ($Cdn)	(5)
Other[1]	(180)
Revenue – 2018	**2,092**

[1] Due to the reorganization of Cameco's marketing activities, NUKEM is no longer considered a reportable segment. The change in NUKEM's revenue is included as other.

See 2018 *Financial results by segment* on page 46 for more detailed discussion.

THREE-YEAR TREND

In 2017, revenue decreased by 11% compared to 2016 due to a decrease in the uranium spot price, resulting in an overall lower average realized price. In addition, prices on fixed-price contracts were lower. This was partially offset by an increase in sales volumes in our uranium segment.

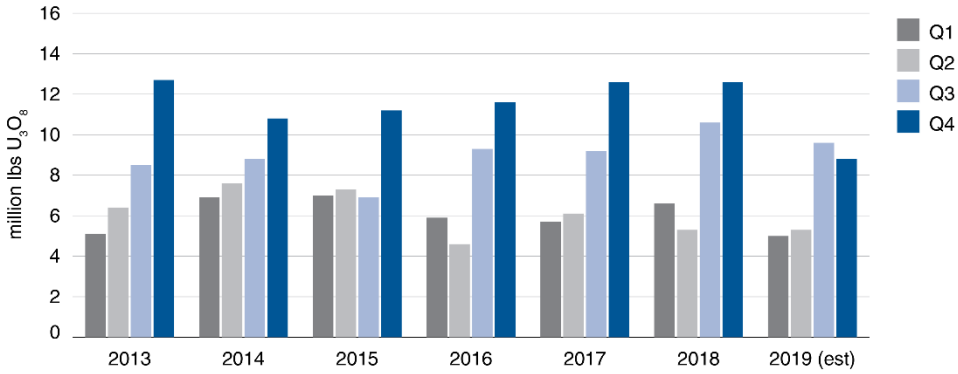
In 2018, revenue decreased by 3% compared to 2017 due to a decrease in sales volumes from NUKEM due to the restructuring of our marketing activities in 2017. This was partially offset by an increase in sales volumes and average realized price in our uranium segment.

Revenue Outlook for 2019

Based on currently committed sales volumes, we expect consolidated revenue to be between $1,650 million and $1,800 million, lower than in 2018 due to a decrease in average realized prices in our uranium segment as a result of lower expected prices under our contract portfolio and an expected decrease in sales volumes. We will continue to be active buying and selling uranium in the spot market if it makes sense for us. If we make additional sales with deliveries in 2019, 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 2019 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.

ANNUAL DELIVERY VOLUME DISTRIBUTION BY QUARTER



Source: Cameco reports and estimates

Corporate expenses

ADMINISTRATION

($ MILLIONS)	2018	2017	CHANGE
Direct administration (including severance costs of $14 million in 2018)	**126**	151	(17)%
Stock-based compensation	**16**	12	33%
Total administration	**142**	163	(13)%

Direct administration costs in 2018 were $25 million lower than in 2017. The decrease was mainly due to changes in our global marketing structure, lower costs related to our CRA litigation and our continued actions to reduce costs.

We recorded $16 million in stock-based compensation expenses in 2018 under our stock option, restricted share unit, deferred share unit, performance share unit and phantom stock option plans, $4 million higher than in 2017 due to the 33% increase in our share price compared to the same period in 2017. See note 24 to the financial statements.

Administration outlook for 2019

We expect direct administration costs to be between $110 million to $120 million, lower compared to 2018, due to our continued actions to reduce costs.

EXPLORATION

Our 2018 exploration activities were focused primarily on Canada. Our spending decreased from $30 million in 2017 to $20 million in 2018.

Exploration outlook for 2019

We expect exploration expenses to be about $13 million in 2019 due to an overall decrease in activity on our regional exploration projects. The focus for 2019 will be on our core projects in Saskatchewan.

FINANCE COSTS

Finance costs were $112 million, largely unchanged from $111 million in 2017. See note 19 to the financial statements.

FINANCE INCOME

Finance income was $22 million compared to $5 million in 2017 due to higher cash balances throughout the year.

GAINS AND LOSSES ON DERIVATIVES

In 2018, we recorded $81 million in losses on our derivatives compared to $56 million in gains in 2017. The decrease reflects the weakness in the Canadian dollar compared to the US dollar at the end of 2018 compared to 2017. See *Foreign exchange* on page 35 and note 26 to the financial statements.

INCOME TAXES

We recorded an income tax recovery of $126 million in 2018 compared to a recovery of $3 million in 2017. The increase in recovery was primarily due to the reversal of the provision related to our CRA dispute in the amount of $61 million (see *Tax Court of Canada decision* below for more details). In addition, a change in the Saskatchewan corporate tax rate in 2017, the change in reporting for JV Inkai, as well as a change in the distribution of earnings among jurisdictions compared to 2017 contributed to the difference. See note 21 to the financial statements.

In 2018, we recorded losses of $257 million in Canada compared to losses of $54 million in 2017, while earnings in foreign jurisdictions increased to $297 million from losses of $154 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 $95 million in 2018 compared to a recovery of $17 million in 2017. The table below presents our adjusted earnings and adjusted income tax expenses attributable to Canadian and foreign jurisdictions.

($ MILLIONS)	2018	2017
Pre-tax adjusted earnings[1]		
Canada	**(181)**	(101)
Foreign	**297**	143
Total pre-tax adjusted earnings	**116**	42
Adjusted income taxes[1]		
Canada	**(112)**	(27)
Foreign	**17**	10
Adjusted income tax recovery	**(95)**	(17)

[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 27).

TRANSFER PRICING DISPUTE

Tax Court of Canada decision

On September 26, the Tax Court of Canada (Tax Court) ruled unequivocally in our favour in our case with the Canada Revenue Agency (CRA) for the 2003, 2005 and 2006 tax years.

The Tax Court ruled that our marketing and trading structure involving foreign subsidiaries and the related transfer pricing methodology used for certain intercompany uranium purchase and sale agreements were in full compliance with Canadian laws for the three tax years in question. While the decision applies only to the three tax years under dispute, we believe there is nothing in the decision that would warrant a materially different outcome for subsequent tax years.

The Tax Court has referred the matter back to the Minister of National Revenue in order to issue new reassessments for the 2003, 2005 and 2006 tax years in accordance with the Tax Court's decision. The total tax amount reassessed for those tax years was $11 million, and we remitted 50%. Therefore, we expect to receive refunds totaling about $5.5 million plus interest. The timing for the revised reassessments along with refunds plus interest may be delayed pending the outcome of the appeal. For further information regarding the appeal, see below.

In accordance with the ruling, we have made an application to the Tax Court to recover costs in the amount of $38 million, which were incurred over the course of this case. In its response to the Tax Court regarding our cost submission, CRA is claiming $9.6 million would be an appropriate award in this case. The actual cost award will be at the discretion of the Tax Court.

In addition, given the clear and decisive ruling in our favour, and the endorsement by the Tax Court of our transfer pricing methodology, we have reversed the provision on our balance sheet of $61 million.

Appeal process

On October 25, 2018, CRA filed a notice of appeal with the Federal Court of Appeal. In its notice of appeal, CRA is not appealing the Tax Court's finding that sham was not present, but is appealing the Tax Court's interpretation and application of the transfer pricing provisions in section 247 of the Income Tax Act. We will not have more specific information on how and why the CRA believes the Tax Court was wrong in its interpretation of the transfer pricing provisions until we are in receipt of the CRA's complete written submissions.

We anticipate that it will take about two years from the start of the appeal process to receive a decision from the Federal Court of Appeal. We believe there is nothing in the Tax Court's decision that would warrant a materially different outcome on appeal.

The decision of the Federal Court of Appeal can be appealed to the Supreme Court of Canada, but only if the Supreme Court of Canada agrees to hear the appeal. The request to appeal a decision of the Federal Court of Appeal to the Supreme Court of Canada must be made within 60 days of issuance of a Federal Court of Appeal decision.

In the event that either party appeals the Federal Court of Appeal decision, it would likely take about two years from the date the Federal Court of Appeal decision is issued to receive a decision from the Supreme Court of Canada should that court hear the appeal.

We expect to incur additional costs during the appeal process, and in connection with potential reassessments of subsequent years. There could also be costs incurred if a negotiated resolution with CRA is sought or achieved.

Potential exposure based on CRA appeal

Since 2008, CRA has disputed our marketing and trading structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements. To date, we have received notices of reassessment for our 2003 through 2012 tax years. While the Tax Court has ruled unequivocally in our favour for the 2003, 2005 and 2006 tax years, and we believe there is nothing in the decision that would warrant a materially different outcome on appeal, or for subsequent tax years we will continue to report on the potential exposure as we expect it will continue to tie up our financial capacity until the dispute is finally resolved for all years.

For the years 2003 to 2012, CRA has shifted Cameco Europe Limited's income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest and instalment penalties, and, from 2007 to 2011, transfer pricing penalties. We understand CRA is currently considering whether to impose a transfer pricing penalty for 2012. Taxes of approximately $321 million for the 2003 to 2018 years have already been paid to date in a jurisdiction outside Canada. If CRA is successful on appeal, we will consider our options under bilateral international tax treaties to limit double taxation of this income. There is a risk that we will not be successful in eliminating all potential double taxation. The income adjustments claimed by CRA in its reassessments are represented by the amounts described below.

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 or secured the amounts shown in the table below. Of these amounts, we expect to receive refunds totaling approximately $5.5 million plus interest based on the ruling of the Tax Court. The timing of the refund may be delayed pending the outcome of the appeal.

YEAR PAID ($ MILLIONS)	CASH TAXES	INTEREST AND INSTALMENT PENALTIES	TRANSFER PRICING PENALTIES	TOTAL	CASH REMITTANCE	SECURED BY LC
Prior to 2014	1	22	36	**59**	59	-
2014	106	47	-	**153**	153	-
2015	202	71	79	**352**	20	332
2016	51	38	31	**120**	32	88
2017	-	1	39	**40**	39	1
2018	17	40	-	**57**	-	57
Total	**377**	**219**	**185**	**781**	**303**	**478**

While we expect the Tax Court's decision to be upheld on appeal and believe the decision should apply in principle to subsequent years, until such time as all appeals are exhausted, and a resolution is reached for all tax years in question, we will not be in a position to determine the definitive outcome of this dispute. We expect any further actions regarding the tax years 2007 through 2012 will be suspended until the three years covered under the decision are finally resolved, with the exception of the transfer pricing penalty noted above. The tax years 2013 and beyond have not yet been reassessed, and it is uncertain what approach CRA will take on audit. Despite the fact that we believe there is no basis to do so, and it is not our view of the likely outcome, CRA may continue to reassess us using the methodology it used to reassess the 2003 through 2012 tax years. In that scenario, and including the $4.9 billion already reassessed, we would expect to receive notices of reassessment for a total of approximately $8.4 billion of additional income taxable in Canada for the years 2003 through 2018, which would result in a related tax expense of approximately $2.5 billion. As well, CRA may continue to apply transfer pricing penalties to taxation years subsequent to 2011. In that case, we estimate that cash taxes and transfer pricing penalties claimed by CRA for these years would be between $1.95 billion and $2.15 billion. In addition, CRA may seek to apply interest and instalment penalties that would be material to us. While in dispute, we would be required to remit or otherwise provide security for 50% of the cash taxes and transfer pricing penalties (between $970 million and $1.07 billion), plus related interest and instalment penalties assessed, which would be material to us. We have already paid or secured $562 million in cash taxes and transfer pricing penalties and $219 million in interest and instalment penalties.

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 to date disallowed 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, for amounts reassessed after 2014, as an alternative to remitting 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 amounts summarized in the table below reflect actual amounts paid or secured from 2003 through 2018 along with estimated post-2018 amounts if CRA were to continue to reassess based on the scenario outlined above, and include the expected timing adjustment for the inability to use any loss carry-backs starting with the 2008 tax year. The amounts have not been adjusted to reflect the refund of approximately $5.5 million plus interest we expect to receive based on the ruling of the Tax Court. The timing of such refund may be delayed pending the outcome of the appeal. We plan to update this table annually to include the estimated impact of reassessments expected for completed years subsequent to 2018.

$ MILLIONS	2003-2018	Post-2018	TOTAL
50% of cash taxes and transfer pricing penalties paid, secured or owing in the period			
Cash payments	226	185 - 235	410 - 460
Secured by letters of credit	336	225 - 275	560 - 610
Total paid[1]	**562**	**410 - 510**	**970 - 1070**

[1] These amounts do not include interest and instalment penalties, which totaled approximately $219 million to December 31, 2018.

In light of our view of the likely outcome of the appeal, and the dispute for subsequent years, based on the Tax Court's decision as described above, we expect to recover the amounts remitted, including the $781 million already paid or otherwise secured to date.

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

This discussion of our expectations relating to our tax dispute with CRA and future tax reassessments by CRA is forward-looking information that is based upon the assumptions and subject to the material risks discussed under the heading Caution about forward-looking information beginning on page 2 and also on the more specific assumptions and risks listed below. Actual outcomes may vary significantly.

Assumptions

- CRA will reassess us for the years 2013 through 2018 using a similar methodology as for the years 2003 through 2012, 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 2011) in addition to interest charges and instalment penalties
- we will be substantially successful in our dispute with CRA, including any appeals of the Tax Court's decision or any decisions regarding other tax years, and we will not incur any significant tax liability resulting from the outcome of the dispute or other costs, potentially including costs associated with a negotiated resolution with CRA

Material risks that could cause actual results to differ materially

- CRA reassesses us for years 2013 through 2018 using a different methodology than for years 2003 through 2012, 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 in an appeal of the Tax Court's decision or any tax decisions of the Tax Court for subsequent years, or appeals of those decisions, and the outcome of our dispute with CRA, potentially including costs associated with a negotiated resolution with CRA, results in significant costs, cash taxes, interest charges and penalties 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 not related to transfer pricing
- we are unable to effectively eliminate all double taxation

Tax outlook for 2019

On an adjusted net earnings basis, we expect a tax expense of up to $10 million in 2019, transitioning from a recovery in previous years due to the anticipated impact of our intercompany arrangements and the changes made to our global marketing organization.

Our consolidated tax rate is a blend of the statutory rates applicable to taxable income earned or tax losses incurred in Canada and in our foreign subsidiaries. We have a global customer base and we have established a marketing and trading structure involving foreign subsidiaries, which entered into various intercompany purchase and sale arrangements, as well as uranium purchase and sale agreements with third parties. Cameco and its subsidiaries made reasonable efforts to put arm's-length transfer pricing arrangements in place, and these arrangements expose the parties to the risks and rewards accruing to them under these contracts. The intercompany contract prices are generally comparable to those established in comparable contracts between arm's-length parties entered into at that time. In 2017, we changed our global marketing organization to consolidate our international activities in Canada in order to achieve efficiencies. The existing purchase and sale arrangements will continue to be in place until they expire. As the existing contracts expire, we anticipate that more income will be earned in Canada.

We continue to expect our consolidated tax rate will trend toward the Canadian statutory rate in the longer term. The actual effective tax rate will vary from year-to-year, primarily due to the actual distribution of earnings among jurisdictions and the market conditions at the time transactions occur under both our intercompany and third-party purchase and sale arrangements.

FOREIGN EXCHANGE

The exchange rate between the Canadian dollar and US dollar affects the financial results of our uranium and fuel services segments.

We sell the majority of our uranium and fuel services products under long-term sales contracts, which are routinely denominated in US dollars. Our product purchases are denominated in US dollars while our production costs are largely denominated in Canadian dollars. To provide cash flow predictability we hedge a portion of our net US/Cdn exposure (e.g. total US dollar sales less US dollar expenditures and product purchases) to manage shorter term exchange rate volatility.

Our risk management policy is based on a 60-month period and permits us to hedge 35% to 100% of our expected net exposure in the first 12 month period. Our normal practice is to layer in hedge contracts over a three- to four-year period with the hedge percentage being highest in the first 12 months and decreasing hedge percentages in subsequent years. The portion of our net exposure that remains unhedged is subject to prevailing market exchange rates for the period. Therefore, our results are affected by the movements in the exchange rate on our hedge portfolio (explained below), and on the unhedged portion of our net exposure. A weakening Canadian dollar would have a positive effect on the unhedged exposure, and a strengthening Canadian dollar would have a negative effect. See *Revenue, adjusted net earnings, and cash flow sensitivity analysis* on page 39 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 of our hedging activities, so we make adjustments in calculating our ANE to better reflect the impact of our hedging program in the applicable reporting period.

Impact of hedging on ANE

We designate contracts for use in particular periods, based on our expected net exposure in that period. Hedge contracts are layered in over time based on this expected net exposure. The result is that our current hedge portfolio is made up of a number of contracts which are currently designated to net exposures we expect in 2019 and future years and we will recognize the gains or losses in ANE in those periods.

For the purposes of ANE, gains and losses on derivatives are reported based on the difference between the effective hedge rate of the contracts designated for use in the particular period and the exchange rate at the time of settlement. This results in an adjustment to current period IFRS earnings to effectively remove reported gains or losses on derivatives that arise from contracts put in place for use in future periods. The effective hedge rate will lag the market in periods of rapid currency movement. See *Non-IFRS measures* on page 27.

The table below provides a summary of our hedge portfolio at December 31, 2018. You can use this information to estimate the expected gains or losses on derivatives for 2019 on an ANE basis. However, if we add contracts to the portfolio that are designated for use in 2019 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, 2018 ($ MILLIONS)		2019	AFTER 2019	TOTAL
US dollar forward contracts	($ millions)	220	240	460
Average contract rate [1]	(US/Cdn dollar)	1.28	1.27	1.28
US dollar option contracts	($ millions)	200	110	310
Average contract rate range[1]	(US/Cdn dollar)	1.26 to 1.31	1.27 to 1.31	1.26 to 1.31
Total US dollar hedge contracts	**($ millions)**	**420**	**350**	**770**
Effective hedge rate range[2]	**(US/Cdn dollar)**	**1.26 to 1.28**	**1.27 to 1.28**	**1.26 to 1.28**
Hedge ratio[3]		**63%**	**8%**	**16%**

[1] The average contract rate is the weighted 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, 2018:

- The value of the US dollar relative to the Canadian dollar was $1.00 (US) for $1.36 (Cdn), up from $1.00 (US) for $1.25 (Cdn) at December 31, 2017. The exchange rate averaged $1.00 (US) for $1.30 (Cdn) over the year.
- The mark-to-market position on all foreign exchange contracts was a $53 million loss compared to a $34 million gain at December 31, 2017.

We manage counterparty risk associated with hedging by dealing with highly rated counterparties and limiting our exposure. At December 31, 2018, all of our hedging counterparties had a Standard & Poor's (S&P) credit rating of A or better.

For information on the impact of foreign exchange on our intercompany balances, see note 26 to the financial statements.

Outlook for 2019

Our strategy is to focus on our tier-one assets and profitably produce at a pace aligned with market signals, in order to preserve the value of those assets and increase long-term shareholder value, and to do that with a focus on safety, people and the environment.

Our outlook for 2019 reflects the expenditures necessary to help us achieve our strategy. We have made significant progress in reducing our administration, exploration and operating costs, as well as our capital expenditures. We have also made a number of strategic decisions that come with significant costs in the near term, costs we factored into our decisions. As a result, and based on what we know today, from a gross profit point of view, 2019 is expected to be a weaker year for us. The changing pricing terms under our existing contract portfolio and the proportion of purchased material compared to produced material making up our uranium supply are expected to adversely impact our revenue and cost of sales in 2019 relative to 2018. In addition, our outlook for the average unit cost of sales in 2019 continues to be impacted by care and maintenance costs, which, although lower than in 2018, are expected to be between $130 million and $160 million. Despite the impact on our expected results, we continue to believe these are the right decisions to create long-term shareholder value.

In contrast, from a cash perspective, we expect to continue to maintain a significant cash balance, even if we decide to retire our $500 million debenture maturing in 2019. We expect to continue to generate cash from operations in this difficult time, however, it will not be as robust as in 2018 given the weaker outlook provided, and without the release of working capital associated with the inventory drawdown we had in 2018.

We report our results and outlook based on a calendar-year view, at a point in time. However, under our marketing framework, we plan on a rolling 12-month basis, which means our sales, inventory and purchases are all variables. Therefore, in accordance with market opportunities and as the year unfolds, we expect our actual sales, purchases and inventory will vary from what we are reporting in the *2019 Financial Outlook* table. Also, in 2019, there is a greater risk of production variability due to the expiry of Orano's collective agreement with unionized employees at the McClean Lake mill on May 31, 2019.

In addition, there are a number of moving pieces both internally and externally, that could have a significant impact on the market and on our results, and it is important to keep them in mind. Some of the more significant items are:

- the results of the investigation under the Section 232 Trade Expansion Act in the US, and the impact, if any, on the uranium market and uranium prices
- a potential cost award from the Tax Court based on the unequivocal win in our case with CRA
- a potential award for damages from the TEPCO arbitration panel
- whether CRA issues a transfer pricing penalty for the 2012 tax year and/or continues to reassess us for years subsequent to 2012

See *2018 Financial results by segment* on page 46 for details.

2019 FINANCIAL OUTLOOK

	CONSOLIDATED	URANIUM	FUEL SERVICES
EXPECTED CONTRIBUTION TO GROSS PROFIT	100%	70%	30%
Production (owned and operated properties)	-	9.0 million lbs	12 to 13 million kgU
Purchases - committed	-	11 to 12 million lbs	-
- required for sales commitments	-	7 to 9 million lbs	-
Total purchases	-	18 to 21 million lbs	-
Sales/delivery volume	-	28 to 30 million lbs	11 to 12 million kgU
Revenue	$1,650-1,800 million	$1,290-1,380 million	$280-310 million
Average realized price	-	$46.10/lb	-
Average unit cost of sales (including D&A)	-	$41.00-43.00/lb	$20.20-21.20/kgU
Direct administration costs	$110-120 million	-	-
Exploration costs	-	$13 million	-
Expected loss on derivatives - ANE basis	$5-15 million	-	-
Tax expense - ANE basis	$0-10 million	-	-
Capital expenditures	$95 million	-	-

We do not provide an outlook for the items in the table that are marked with a dash.

The following assumptions were used to prepare the outlook in the table above:

- Purchases – committed are based on the volumes we currently have commitments to acquire under contract in 2019, including our JV Inkai purchases and the purchase of NUKEM's excess inventory.
- Purchases – required for sales commitments represent the additional volumes we currently need to purchase in order to meet the delivery commitments we currently have under contract in 2019.
- Our 2019 outlook for sales/delivery volume and revenue does not include sales between our uranium and fuel services segments.
- Sales/delivery volume is based on the volumes we currently have commitments to deliver under contract in 2019.
- Uranium revenue and average realized price are based on a uranium spot price of $28.90 (US) per pound (the UxC spot price as of January 28, 2019), a long-term price indicator of $32.00 (US) per pound (the UxC long-term indicator on January 28, 2019) and an exchange rate of $1.00 (US) for $1.30 (Cdn).
- Uranium average unit cost of sales (including D&A) is based on the expected unit cost of sales for produced material and expected purchases noted in the outlook. If we make discretionary purchases in 2019, then we expect the overall unit cost of sales may be affected.
- Direct administration costs do not include stock-based compensation expenses. See page 30 for more information.
- Our outlook for the tax expense is based on adjusted net earnings and the other assumptions listed in the table. The outlook does not include our share of taxes on JV Inkai profits as the income from JV Inkai is net of taxes. If other assumptions change then the expected expense may be affected.

Our 2019 financial outlook is presented on the basis of equity accounting for our minority ownership interest in JV Inkai. Under equity accounting, our share of the profits earned by JV Inkai on the sale of its production will be included in "income from equity-accounted investees" on our consolidated statement of earnings. Our share of production will be purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures. Please see *JV Inkai Planning for the future* on page 70 and *Capital spending* on page 42 for more details.

In addition, the 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. 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* below, and *Foreign exchange* on page 35.

REVENUE, ADJUSTED NET EARNINGS, AND CASH FLOW SENSITIVITY ANALYSIS

		IMPACT ON:		
FOR 2019 ($ MILLIONS)	CHANGE	REVENUE	ANE	CASH FLOW
Uranium spot and term price[1]	**$5(US)/lb increase**	102	29	24
	$5(US)/lb decrease	(80)	(11)	-
Value of Canadian dollar vs US dollar	**One cent decrease in CAD**	12	4	2
	One cent increase in CAD	(12)	(4)	(2)

[1] Assuming change in both UxC spot price ($28.90 (US) per pound on January 28, 2019) and the UxC long-term price indicator ($32.00 (US) per pound on January 28, 2019).

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 December 31, 2018 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 December 31, 2018, 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
2020	30	41	55	65	74	82	88
2021	27	40	55	64	70	75	80
2022	27	40	55	64	68	73	78
2023	28	42	56	67	73	78	84

The table illustrates the mix of long-term contracts in our December 31, 2018 portfolio, and is consistent with our marketing strategy. It has been updated to reflect contracts entered into up to December 31, 2018.

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 20 million pounds per year, with commitment levels in 2019 and 2020 higher than in 2021 through 2023
- excludes sales between our 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 21% 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 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 other financial obligations.

At the end of 2018, we had cash and short-term investments of $1.1 billion, 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 continue to provide a solid revenue stream. From 2019 through 2023, we have commitments to deliver an average of 20 million pounds per year, with commitment levels in 2019 and 2020 higher than in 2021 through 2023.

In the currently weak uranium price environment, our focus is on preserving the value of our tier-one assets and reducing our operating, capital and general and administrative spending. We have a number of alternatives to fund future capital requirements, including using our operating cash flow, drawing on our existing credit facilities, entering new credit facilities, and raising additional capital through debt or equity financings. We are always considering our financing options so we can take advantage of favourable market conditions when they arise. In addition, due to the deliberate cost reduction measures implemented over the past five years, the reduction in our dividend, and the drawdown of inventory in 2018 as a result of the suspension of production at our McArthur River/Key Lake operation, we have significant cash balances. We will continue to generate cash from operations however, it will not be as robust as in 2018 given the weaker expected results, and without the release of working capital associated with the inventory drawdown we had in 2018. We expect our cash balances and operating cash flows to meet our capital requirements during 2019, even if we decide to retire our $500 million debenture maturing in 2019.

We received a favorable ruling in our case with CRA for the 2003, 2005 and 2006 tax years. We expect the ruling to be upheld on appeal, and we believe the ruling should apply in principle to subsequent tax years. However, until such time as all appeals are exhausted, and a resolution is reached for all tax years in question, in accordance with Canadian income tax rules we may be required to remit or otherwise secure 50% of any cash taxes plus related interest and penalties CRA may continue to reassess, even though we believe there is no basis for them to do so. See page 31 for more information. In the above scenario, the table on page 33 provides the amount and timing of the cash taxes and transfer pricing penalties paid or secured to date. In addition, it provides an estimate of the amounts we would potentially have to pay or secure upfront if CRA continues to reassess us using the same methodology it reassessed the 2003 to 2012 tax years. The timing of these amounts is uncertain.

FINANCIAL CONDITION

	2018	2017
Cash position ($ millions) (cash and cash equivalents and short-term investments)	**1,103**	592
Cash provided by operations ($ millions) (net cash flow generated by our operating activities after changes in working capital)	**668**	596
Cash provided by operations/net debt (net debt is total consolidated debt, less cash position)	**170%**	66%
Net debt/total capitalization (total capitalization is net debt and equity)	**7%**	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. We remain focused on maintaining our investment-grade credit rating.

Third-party ratings for our commercial paper and senior debt as of February 7, 2019:

SECURITY	DBRS	S&P
Commercial paper	R-2 (high)	A-2
Senior unsecured debentures	BBB (high)	BBB
Rating trend / rating outlook	Negative	Negative

The rating trend/outlook represents the rating agency's assessment of the likelihood and direction 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)	2018	2017
Cash and cash equivalents at beginning of year	**592**	320
Cash from operations	**668**	596
Investment activities		
Additions to property, plant and equipment and acquisitions	**(55)**	(114)
Other investing activities	**34**	21
Financing activities		
Interest paid	**(73)**	(69)
Dividends	**(71)**	(158)
Exchange rate on changes on foreign currency cash balances	**8**	(4)
Cash and cash equivalents and short-term investments at end of year	**1,103**	592

CASH FROM OPERATIONS

Cash from operations was 12% higher than in 2017 due largely to an increase in cash provided by working capital. This was a result of a larger decrease in inventory compared to in 2017. Working capital provided $89 million more in 2018. In addition, while we had lower gross profits in our operating segments, income taxes paid decreased and cost reduction measures resulted in a lower use of cash. Not including working capital requirements, our operating cash flows in the year were down $25 million. See note 23 to the financial statements.

Cash from operations for 2018 was lower than our previous outlook of between 20% and 30% higher than 2017 as a result of the timing of working capital receipts at the end of the year.

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)	2018 PLAN[1]	2018 ACTUAL	2019 PLAN
Sustaining capital			
McArthur River/Key Lake	5	1	**5**
Cigar Lake	10	9	**15**
US ISR	-	1	**-**
Fuel services	30	11	**30**
Other	-	1	**-**
Total sustaining capital	**45**	**23**	**50**
Capacity replacement capital			
McArthur River/Key Lake	-	2	**-**
Cigar Lake	35	30	**45**
Total capacity replacement capital	**35**	**32**	**45**
Total uranium & fuel services	**80**	**55**	**95**

[1] Capital spending outlook was updated to $80 million (from $90 million) in our second quarter MD&A.

Total capital expenditures for 2018 were lower than our outlook of $80 million (updated in the second quarter) as a result of the timing of expenditures on the Vision in Motion project at fuel services.

Outlook for investing activities

CAMECO'S SHARE ($ MILLIONS)	2020 PLAN	2021 PLAN
Total uranium & fuel services	**75-125**	**75-125**
Sustaining capital	45-70	45-70
Capacity replacement capital	30-55	30-55
Growth capital	-	-

We expect total 2019 capital expenditures for uranium and fuel services to be about 73% higher than in 2018 mainly due to the Vision in Motion project at fuel services. Capital expenditures for JV Inkai are expected to be covered by JV Inkai cash flows in 2019, and are included in our overall equity investment.

Major sustaining and capacity replacement expenditures in 2019 include:

- Fuel services – ramp up of work on our Vision in Motion project
- Cigar Lake – underground development and necessary ground freezing infrastructure to meet production targets

Our estimate for capital spending in 2019 has been reduced to $95 million and between $75 million and $125 million in 2020 (previously both were between $100 million and $150 million) due to the suspension of production at McArthur River/Key Lake for an indeterminate duration. Our 2019, 2020 and 2021 capital spending estimates assume that market conditions remain such that McArthur River and Key Lake remain in a state of ongoing care and maintenance.

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)	2019	2020 AND 2021	2022 AND 2023	2024 AND BEYOND	TOTAL
Long-term debt	500	-	400	600	1,500
Interest on long-term debt	69	82	67	118	336
Provision for reclamation	51	93	72	941	1,157
Provision for waste disposal	1	3	4	2	10
Other liabilities	1	2	2	63	68
Capital commitments	16	-	-	-	16
Total	**638**	**180**	**545**	**1,724**	**3,087**

We have contractual capital commitments of approximately $16 million at December 31, 2018. 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 $2.9 billion, which include the following:

- A $1.25 billion unsecured revolving credit facility that matures November 1, 2022. 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. 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, 2018, there were no amounts outstanding under this facility.
- At December 31, 2018, we had approximately $1.6 billion outstanding in financial assurances provided by various financial institutions. We use these facilities mainly to provide financial assurance for future decommissioning and reclamation of our operating sites, for our obligations relating to the CRA dispute, and as overdraft protection.

In total we have $1.5 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, 2018, we complied with all covenants, and we expect to continue to comply in 2019.

OFF-BALANCE SHEET ARRANGEMENTS

We had two kinds of off-balance sheet arrangements at the end of 2018:

- purchase commitments
- financial assurances

Purchase commitments

We make purchases under long-term contracts where it is beneficial for us to do so and in order to support our long-term contract portfolio. The following table is based on our purchase commitments in our uranium and fuel services segments, as well as commitments previously contracted by NUKEM, at December 31, 2018[2] but does not include purchases of our share of Inkai production. These commitments include a mix of fixed-price and market-related contracts. Actual payments will be different as a result of changes to our purchase commitments and, in the case of contracts with market-related pricing, the market prices in effect at the time of delivery. We will update this table as required in our MD&A to reflect material changes to our purchase commitments and changes in the prices used to estimate our commitments under market-related contracts.

DECEMBER 31, 2018 ($ MILLIONS)	2019	2020 AND 2021	2022 AND 2023	2024 AND BEYOND	TOTAL
Purchase commitments[1,2]	346	207	133	329	1,015

[1] Denominated in US dollars and Japanese yen, converted from US dollars to Canadian dollars at the rate of 1.30 and from Japanese yen to Canadian dollars at the rate of $0.01.

[2] These amounts have been adjusted for any additional purchase commitments that we have entered into since December 31, 2018, but does not include deliveries taken under contract since December 31, 2018.

We have commitments of $1.0 billion (Cdn) for the following:

- approximately 23 million pounds of U_3O_8 equivalent from 2019 to 2028
- approximately 1 million kgU as UF_6 in conversion services in 2019
- about 0.2 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 and surety bonds 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, 2018 our financial assurances totaled $1.6 billion, up from $1.5 billion at December 31, 2017. The increase in 2018 was mainly due to obligations relating to the CRA dispute for which financial assurances were secured in the first quarter.

BALANCE SHEET

DECEMBER 31, 2018				CHANGE
($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2018	2017	2016	2017 TO 2018
Inventory	**468**	950	1,288	(51)%
Total assets	**8,019**	7,779	8,249	3%
Long-term financial liabilities	**2,102**	2,448	2,459	(14)%
Dividends per common share	**0.08**	0.40	0.40	(80)%

Total product inventories decreased by 51% to $468 million this year due to sales being higher than the quantities produced and purchased during the year. Also contributing to the decrease was the 5.4 million pounds of uranium concentrates provided to Orano, which is repayable in kind no later than December 31, 2023. In 2018, total volume of product inventories for the uranium segment decreased by 71% while the average cost of inventory increased by 8%. The average cost increased due to a reduction in low cost produced material as a result of the suspension of McArthur River and Key Lake and the change in accounting for JV Inkai, such that our share of production is now included in inventory at a discount to market prices. As a result, purchases which have a higher cost than produced material, now make up a higher proportion of our uranium supply. At December 31, 2018, our average cost for uranium was $33.05 per pound, up from $30.72 per pound at December 31, 2017. As of December 31, 2018, we held an inventory of 7.7 million pounds of U_3O_8 equivalent in our uranium segment (excluding broken ore).

At the end of 2018, our total assets amounted to $8 billion, an increase of $0.2 billion compared to 2017, primarily due to an increase in cash and investment balances. In 2017, the total asset balance decreased by $0.5 billion compared to 2016, primarily due to a decrease in property, plant and equipment due to asset impairments.

The major components of long-term financial liabilities are long-term debt, the provision for reclamation, deferred sales and financial derivatives. Our balance decreased by 14% in 2018 due to $500 million of long-term debt, which matures in September 2019, being reclassified to current debt. The balance did not change significantly in 2017.

2018 financial results by segment

Uranium

HIGHLIGHTS		2018	2017	CHANGE
Production volume (million lbs)		**9.2**	23.8	(61)%
Sales volume (million lbs)		**35.1**	33.6	4%
Average spot price	($US/lb)	**24.59**	21.78	13%
Average long-term price	($US/lb)	**30.38**	31.92	(5)%
Average realized price	($US/lb)	**37.01**	36.13	2%
	($Cdn/lb)	**47.96**	46.80	2%
Average unit cost of sales (including D&A)	($Cdn/lb)	**40.33**	35.04	15%
Revenue ($ millions)		**1,684**	1,574	7%
Gross profit ($ millions)		**268**	395	(32)%
Gross profit (%)		**16**	25	(36)%

Production volumes in 2018 decreased by 61% compared to 2017 mainly due to planned lower production from McArthur River/Key Lake as the operation moved into care and maintenance in the first quarter as well as a change in reporting for JV Inkai. See *Uranium – production overview* on page 59 for more information.

Uranium revenues this year were up 7% compared to 2017 due to an increase of 2% in the Canadian dollar average realized price and an increase in sales volumes of 4%. The average realized price increased due to increased prices under fixed price contracts. Although the spot price for uranium averaged $24.59 (US) per pound in 2018, an increase of 13% compared to the 2017 average price of $21.78 (US) per pound, prices on the remainder of our deliveries in 2018 decreased as the proportion of market-related contracts referencing the spot-price at the time of delivery and our spot market sales, increased relative to 2017.

Total cost of sales (including D&A) increased by 20% ($1.42 billion compared to $1.18 billion in 2017) mainly due to a 15% increase in the unit cost of sales and an increase in sales volume of 4%. The increase in the unit cost of sales compared to last year was mainly due to care and maintenance costs associated with the suspension of production at our McArthur River/Key Lake and US ISR operations. The cost of our purchases have decreased from 2017.

The net effect was a $127 million decrease in gross profit for the year.

The following table shows the costs of produced and purchased uranium incurred in the reporting periods (non-IFRS measures, see below). These costs do not include care and maintenance costs, selling costs such as royalties, transportation and commissions, nor do they reflect the impact of opening inventories on our reported cost of sales.

($CDN/LB)	2018	2017	CHANGE
Produced			
Cash cost	**15.31**	15.11	1%
Non-cash cost	**15.90**	11.67	36%
Total production cost [1]	**31.21**	26.78	17%
Quantity produced (million lbs)[1]	**9.2**	23.8	(61)%
Purchased			
Cash cost[1]	**36.01**	37.19	(3)%
Quantity purchased (million lbs)[1]	**14.0**	6.1	130%
Totals			
Produced and purchased costs	**34.11**	28.90	18%
Quantities produced and purchased (million lbs)	**23.2**	29.9	(22)%

[1] Due to the transition to equity accounting, our share of production will be shown as a purchase at the time of delivery. JV Inkai purchases will fluctuate during the quarters and timing of purchases will not match production. In 2018 we purchased 2.9 million pounds at a purchase price per pound of $32.06 ($24.54 (US)).

The change to equity accounting for our interest in JV Inkai removes the impact of our share of Inkai's low cash cost of production from the mix. Those pounds now are reflected as a purchase at a discount to the spot price in this table. The benefit of the estimated life-of-mine operating cost, between $9 and $10 per pound, is expected to be reflected in the line item on our statement of earnings called "share of earnings from equity-accounted investee".

The average cash cost of production was 1% higher in the year than in 2017. While McArthur River and Key Lake are shut down, our cash cost of production is expected to reflect the estimated life-of-mine operating cost, between $15 and $16 per pound, of mining and milling our share of Cigar Lake mineral reserves.

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 $36.01 (Cdn), or $27.68 (US) per pound, compared to $29.23 (US) per pound in the same period in 2017.

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 2018 and 2017 as reported in our financial statements.

CASH AND TOTAL COST PER POUND RECONCILIATION

($ MILLIONS)	2018	2017
Cost of product sold	**1,138.9**	910.7
Add / (subtract)		
Royalties	**(39.1)**	(66.6)
Other selling costs	**(12.6)**	(7.5)
Care and maintenance and severance costs	**(168.3)**	(38.3)
Change in inventories	**(272.4)**	(211.8)
Cash operating costs (a)	**646.5**	586.5
Add / (subtract)		
Depreciation and amortization	**233.0**	267.9
Care and maintenance costs	**44.2**	-
Change in inventories	**(129.3)**	9.8
Total operating costs (b)	**794.4**	864.2
Uranium produced & purchased (million lbs) (c)	**23.2**	29.9
Cash costs per pound (a ÷ c)	**27.87**	19.62
Total costs per pound (b ÷ c)	**34.24**	28.90

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 $22.75/kg U_3O_8 ($10.26/lb) and a 15% royalty is charged on profit in excess of $22.75/kg U_3O_8. Profit is determined as revenue less certain operating, exploration, reclamation and capital costs. Both exploration and capital costs are deductible at the discretion of the producer.

As a resource corporation in Saskatchewan, we also pay a corporate resource surcharge of 3% of the value of resource sales.

URANIUM SEGMENT OUTLOOK

In July 2018 we announced the extension of the suspension of production at the McArthur River/Key Lake operation for an indeterminate duration and therefore, we expect to produce 9 million pounds in 2019. In addition, we have commitments under contracts to purchase approximately 11 million to 12 million pounds, including our purchases from JV Inkai and the purchase of NUKEM's excess inventory. In addition, we will be required to purchase 7 million to 9 million pounds in the spot market to meet our sales commitments, bringing total expected 2019 purchases to between 18 million and 21 million pounds. We anticipate an average purchase price of $36.70/lb for both our committed and required purchases, based on the uranium price and foreign exchange rate assumptions used in our outlook table on page 37.

Based on the contracts we have in place, and not including sales between our segments, we expect to deliver between 28 million and 30 million pounds of U_3O_8 in 2019. We expect the unit cost of sales to be between $41.00/lb and $43.00/lb, higher than in 2018 primarily due to the increased cost for purchased material. The required spot market purchases and any additional discretionary purchases we may make in 2019 are subject to market prices throughout the year. If they are at a cost different than the assumptions noted, then we expect the overall unit cost of sales to be affected, as well as our revenue.

We expect revenue to be between $1,290 million to $1,380 million, lower than in 2018 as a result of a lower expected average realized price and lower sales volumes.

Fuel services

(includes results for UF_6, UO_2 and fuel fabrication)

HIGHLIGHTS		2018	2017	CHANGE
Production volume (million kgU)		**10.5**	7.9	33%
Sales volume (million kgU)		**11.7**	11.5	2%
Average realized price	($Cdn/kgU)	**26.78**	27.20	(2)%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**21.76**	21.66	-
Revenue ($ millions)		**314**	313	-
Gross profit ($ millions)		**59**	64	(8)%
Gross profit (%)		**19**	20	(5)%

Total revenue increased marginally from 2017. The 2% increase in sales volumes was largely offset by a 2% decrease in the realized price.

The total cost of products and services sold (including D&A) increased by 2% compared to 2017 to $255 million, due to a 2% increase in sales volumes. The average unit cost of sales was only slightly higher than 2017.

The net effect was a $5 million decrease in gross profit.

FUEL SERVICES OUTLOOK

In 2019, we plan to produce 12 million to 13 million kgU, and we expect sales volumes, not including intersegment sales, to be 11 million to 12 million kgU. Overall revenue is expected to be between $280 million and $310 million, lower than 2018 due to a lower anticipated average realized price. We expect the average unit cost of sales (including D&A) to decrease to between $20.20/kgU and $21.20/kgU.

Fourth quarter financial results

Consolidated results

HIGHLIGHTS	THREE MONTHS ENDED DECEMBER 31		
($ MILLIONS EXCEPT WHERE INDICATED)	2018	2017	CHANGE
Revenue	**831**	809	3%
Gross profit	**207**	237	(13)%
Net earnings (loss) attributable to equity holders	**160**	(62)	>100%
$ per common share (basic)	**0.40**	(0.16)	>100%
$ per common share (diluted)	**0.40**	(0.16)	>100%
Adjusted net earnings (non-IFRS, see page 27)	**202**	181	12%
$ per common share (adjusted and diluted)	**0.51**	0.46	11%
Cash provided by operations (after working capital changes)	**57**	320	(82)%

NET EARNINGS

The following table shows what contributed to the change in net earnings and adjusted net earnings (non-IFRS measure, see page 8) in the fourth quarter of 2018 compared to the same period in 2017.

($ MILLIONS)		IFRS	ADJUSTED
Net earnings (losses) - 2017		**(62)**	**181**
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	-	-
	Higher realized prices ($US)	17	17
	Foreign exchange impact on realized prices	21	21
	Higher costs	(75)	(75)
	change – uranium	(37)	(37)
Fuel services	Higher sales volume	2	2
	Higher realized prices ($Cdn)	2	2
	Higher costs	(1)	(1)
	change – fuel services	3	3
Other changes			
Lower administration expenditures		3	3
Lower impairment charges		247	-
Lower exploration expenditures		2	2
Change in reclamation provisions		5	-
Higher loss on disposal of assets		(1)	(1)
Change in gains or losses on derivatives		(51)	(2)
Change in foreign exchange gains or losses		3	3
Change in earnings from equity-accounted investments		26	26
Gain on sale of interest in Wheeler River Joint Venture in 2018		17	17
Change in income tax recovery or expense		(13)	(11)
Other		18	18
Net earnings - 2018		**160**	**202**

ADJUSTED NET EARNINGS

We use adjusted net earnings, a non-IFRS measure, as a more meaningful way to compare our financial performance from period to period. See page 27 for more information. The following table reconciles adjusted net earnings with our net earnings.

	THREE MONTHS ENDED DECEMBER 31	
($ MILLIONS)	2018	2017
Net earnings (loss) attributable to equity holders	**160**	(62)
Adjustments		
Adjustments on derivatives	**47**	(2)
Impairment charges	**-**	247
Reclamation provision adjustments	**10**	15
Income taxes on adjustments	**(15)**	(17)
Adjusted net earnings	**202**	181

ADMINISTRATION

	THREE MONTHS ENDED DECEMBER 31		
($ MILLIONS)	2018	2017	CHANGE
Direct administration	**33**	36	(8)%
Stock-based compensation	**3**	3	-
Total administration	**36**	**39**	**(8)%**

Direct administration costs were $33 million in the quarter, $3 million lower than the same period last year due to cost reduction actions which further reduced administration costs in 2018. Stock-based compensation expenses were unchanged from the fourth quarter of 2017. See note 24 to the financial statements.

Quarterly trends

HIGHLIGHTS				2018				2017
($ MILLIONS EXCEPT PER SHARE AMOUNTS)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	**831**	488	333	439	809	486	470	393
Net earnings (loss) attributable to equity holders	**160**	28	(76)	55	(62)	(124)	(2)	(18)
$ per common share (basic)	**0.40**	0.07	(0.19)	0.14	(0.16)	(0.31)	(0.00)	(0.05)
$ per common share (diluted)	**0.40**	0.07	(0.19)	0.14	(0.16)	(0.31)	(0.00)	(0.05)
Adjusted net earnings (loss) (non-IFRS, see page 27)	**202**	15	(28)	23	181	(50)	(44)	(29)
$ per common share (adjusted and diluted)	**0.51**	0.04	(0.07)	0.06	0.46	(0.13)	(0.11)	(0.07)
Cash provided by (used in) operations (after working capital changes)	**57**	278	57	275	320	154	130	(8)

Key things to note:

- Our financial results are strongly influenced by the performance of our uranium segment, which accounted for 81% of consolidated revenues in the fourth quarter of 2018 and 78% of consolidated revenues in the fourth quarter of 2017.
- 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 27 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	2018				2017			
($ MILLIONS EXCEPT PER SHARE AMOUNTS)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Net earnings (loss) attributable to equity holders	**160**	28	(76)	55	(62)	(124)	(2)	(18)
Adjustments								
Adjustments on derivatives	**47**	(24)	20	22	(2)	(40)	(44)	(22)
Impairment charges	**-**	-	-	-	247	111	-	-
Reclamation provision adjustments	**10**	5	44	1	15	(9)	(12)	6
Gain on restructuring of JV Inkai	**-**	-	-	(49)	-	-	-	-
Income taxes on adjustments	**(15)**	6	(16)	(6)	(17)	12	14	5
Adjusted net earnings (losses) (non-IFRS, see page 27)	**202**	15	(28)	23	181	(50)	(44)	(29)

Fourth quarter financial results by segment

Uranium

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2018	2017	CHANGE
Production volume (million lbs)		**2.4**	6.9	(65)%
Sales volume (million lbs)		**12.6**	12.6	-
Average spot price	($US/lb)	**28.27**	22.32	27%
Average long-term price	($US/lb)	**31.50**	30.67	3%
Average realized price	($US/lb)	**40.50**	39.44	3%
	($Cdn/lb)	**53.11**	50.04	6%
Average unit cost of sales (including D&A)	($Cdn/lb)	**38.89**	32.91	18%
Revenue ($ millions)		**670**	631	6%
Gross profit ($ millions)		**179**	216	(17)%
Gross profit (%)		**27**	34	(21)%

Production volumes this quarter were 65% lower compared to the fourth quarter of 2017, mainly due to a lack of production from the suspended McArthur River/Key Lake operations and a change in reporting for JV Inkai. See *Uranium – production overview* on page 59 for more information.

Uranium revenues were up 6% due to a 6% increase in the Canadian dollar average realized price. The US dollar average realized price increased by 3% compared to 2017. The average realized price increased due to increased prices under fixed price contracts. This was partially offset by a decrease in prices for the remainder of our deliveries in the fourth quarter as the proportion of market-related contracts referencing the spot-price at the time of delivery and our spot market sales, increased relative to 2017. In addition, the Canadian dollar was weaker compared to the same period last year, $1.00 (US) for $1.31 (Cdn) compared to $1.00 (US) for $1.27 (Cdn) in the fourth quarter of 2017.

Total cost of sales (including D&A) increased by 18% ($490 million compared to $415 million in 2017). This was the result of an 18% increase in the average unit cost of sales as sales volumes remained constant. The increase in the average unit cost of sales compared to last year was due mainly to increased costs associated with the suspension of production at our McArthur River/Key Lake operations. The cost of our purchases also increased from the fourth quarter of 2017.

The net effect was a $37 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 care and maintenance costs, selling costs such as royalties, transportation and commissions, nor do they reflect the impact of opening inventories on our reported cost of sales.

($CDN/LB)	THREE MONTHS ENDED DECEMBER 31 2018	2017	CHANGE
Produced			
Cash cost	**14.91**	13.28	12%
Non-cash cost	**15.07**	12.08	25%
Total production cost [1]	**29.98**	25.36	18%
Quantity produced (million lbs)[1]	**2.4**	6.9	(65)%
Purchased			
Cash cost[1]	**38.13**	34.74	10%
Quantity purchased (million lbs)[1]	**7.3**	3.1	135%
Totals			
Produced and purchased costs	**36.11**	28.27	28%
Quantities produced and purchased (million lbs)	**9.7**	10.0	(3)%

[1] Due to the transition to equity accounting, our share of production will be shown as a purchase at the time of delivery. JV Inkai purchases will fluctuate during the quarters and timing of purchases will not match production. During the quarter, we purchased 1.5 million pounds at a purchase price per pound of $35.62 ($27.09 (US)).

The change to equity accounting for our interest in JV Inkai removes the impact of our share of Inkai's low cash cost of production from the mix. Those pounds now are reflected as a purchase at a discount to the spot price in this table. The benefit of the estimated life-of-mine operating cost, between $9 and $10 per pound, is expected to be reflected in the line item on our statement of earnings called "share of earnings from equity-accounted investee".

The average cash cost of production was 12% higher for the quarter than in the comparable period in 2017. While McArthur River and Key Lake are shut down, our cash cost of production is expected to reflect the estimated life-of-mine operating cost, between $15 and $16 per pound, of mining and milling our share of Cigar Lake mineral reserves.

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 $38.13 (Cdn) per pound, or $29.08 (US) per pound in US dollar terms, compared to $28.41 (US) per pound in the fourth quarter of 2017.

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 2018 and 2017.

CASH AND TOTAL COST PER POUND RECONCILIATION

($ MILLIONS)	THREE MONTHS ENDED DECEMBER 31 2018	2017
Cost of product sold	**409.2**	319.2
Add / (subtract)		
Royalties	**(2.6)**	(20.4)
Other selling costs	**(4.0)**	(1.8)
Care and maintenance and severance costs	**(38.6)**	(9.5)
Change in inventories	**(48.4)**	(88.2)
Cash operating costs (a)	**315.6**	199.3
Add / (subtract)		
Depreciation and amortization	**67.7**	95.8
Care and maintenance costs	**13.4**	-
Change in inventories	**(43.4)**	(12.4)
Total operating costs (b)	**353.3**	282.7
Uranium produced & purchased (million lbs) (c)	**9.7**	10.0
Cash costs per pound (a ÷ c)	**32.54**	19.93
Total costs per pound (b ÷ c)	**36.42**	28.27

Fuel services

(includes results for UF_6, UO_2 and fuel fabrication)

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2018	2017	CHANGE
Production volume (million kgU)		**3.5**	2.5	40%
Sales volume (million kgU)		**5.1**	4.6	11%
Average realized price	($Cdn/kgU)	**23.56**	23.13	2%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**18.72**	18.43	2%
Revenue ($ millions)		**120**	107	12%
Gross profit ($ millions)		**25**	22	14%
Gross profit (%)		**21**	21	-

Total revenue increased by 12% due to an 11% increase in sales volumes and a 2% increase in average realized price. The increase in average realized price was due to the mix of products sold, as well as an increase in the average realized price for UF_6 and UO_2.

Total cost of sales (including D&A) increased by 13% to $96 million compared to the fourth quarter of 2017 due to an 11% increase in sales volumes and an increase of 2% in the average unit cost of sales, primarily as a result of higher prices for UF_6.

The net effect was a $3 million increase in gross profit.

Operations and projects

This section of our MD&A is an overview of the mining properties we operate or have an interest in, our curtailed operations and our projects, what we accomplished this year, our plans for the future and how we manage risk.

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. The review includes Bill C-69, which would impact the federal environmental assessment regime as well as the Navigation Protection Act and Bill C-68, which would change the Fisheries Act. Also under review is the Canadian Environmental Protection Act, 1996. 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 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.

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 and accept 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.

Currently, Cameco has submitted updates to all Saskatchewan operations' Preliminary Decommissioning Plan (PDP) and Preliminary Decommissioning Cost Estimate (PDCE) documents in accordance with the five year timeline specified in the regulations. Upon acceptance of the final PDP and PDCE documents by the Saskatchewan Ministry of Environment and Canadian Nuclear Safety Commission (CNSC) staff, a formal Commission hearing in writing will be required for final approval of the PDP and PDCE by the Commission. We have received comments on the revised PDP for McArthur River and Cigar Lake.

At the end of 2018, our estimate of total decommissioning and reclamation costs was $1.16 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $1.05 billion at the end of 2018 (the present value of the $1.16 billion). A licence is required prior to beginning decommissioning. Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, and none of our assets have a licence for decommissioning, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation such as letters of credit or surety bonds to regulatory authorities, as required. We had a total of about $1.05 billion in financial assurances supporting our reclamation liabilities at the end of 2018. All of our North American operations have financial assurances in place in connection with our preliminary plans for decommissioning of the sites.

Some of the sites we own or operate have been under ongoing investigation and/or remediation and planning as a result of historic soil and groundwater conditions. 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 2018, we invested:

- $70 million in environmental protection, monitoring and assessment programs, approximately 11% more than in 2017
- $20 million in health and safety programs, or 13% less than 2017

The increase in environmental expenditures in 2018 was largely due to expenditures related to the Vision in Motion projects, which were somewhat offset by overall cost reductions at other Cameco locations. The decrease in health and safety related expenditures were due to overall cost reductions across Cameco operations.

Spending on environmental and health and safety programs is expected to decrease in 2019 as a result of the continued impacts of the decisions to transition Rabbit Lake into care and maintenance and to curtail production at the US operations, as well as the shutdown of the McArthur River and Key Lake operations for an indeterminate duration.

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 and delivery 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 2.4 million pounds, 65% lower compared to the same period in 2017, while production for the year was 9.2 million pounds, 61% lower than in 2017. The decrease was due to the production suspension at McArthur River/Key Lake and a change in reporting for JV Inkai. See *Uranium - operations* starting on page 60 for more information.

Uranium production

CAMECO SHARE	THREE MONTHS ENDED DECEMBER 31		YEAR ENDED DECEMBER 31			
(MILLION LBS)	2018	2017	2018	2017	2018 PLAN	2019 PLAN
McArthur River/Key Lake	**-**	3.5	**0.1**	11.2	0.1	- [2]
Cigar Lake	**2.4**	2.5	**9.0**	9.0	9.0	9.0
Inkai[1]	**-**	0.9	**-**	3.2	-	-
US ISR	**-**	-	**0.1**	0.4	0.1	- [2]
Total	**2.4**	6.9	**9.2**	23.8	9.2	9.0

[1] We expect total production from Inkai to be 8.3 million pounds in 2019 on a 100% basis. Due to the transition to equity accounting, our share of production will be shown as a purchase.

[2] The McArthur River/Key Lake and Rabbit Lake operations are 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 – Tier-one operations* beginning on page 60 and *Uranium – Tier-two curtailed operations* beginning on page 71 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 preserve the value of those assets and increase long-term shareholder value, and to do that with an emphasis on safety, people and the environment.

Given today's weak market conditions and to mitigate risk, we plan to:

- ensure we continue to operate safely
- evaluate the optimal mix of production, inventory and purchases in order to retain the flexibility to deliver long-term value
- focus on cost management, productivity improvements, and supply discipline

Uranium – Tier-one operations

McArthur River mine / Key Lake mill

2018 Production (our share)

0.1M lbs

2019 Production Outlook (our share)

0.0M lbs

Estimated Reserves (our share)

273.6M lbs

Estimated Mine Life[1]

22 years

[1]Estimated mine life assumes production of 18 million pounds per year after restart.

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 300 to 400 tonnes of ore per day. We are the operator of both the mine and mill.

In 2018, a decision was made to suspend production at the mine and mill for an indeterminate duration.

McArthur River is considered a material uranium property for us.

Location		Saskatchewan, Canada
Ownership		McArthur River – 69.805% Key Lake – 83.33%
Mine type		Underground
Mining methods		Primary: blasthole stoping Secondary: raiseboring
End product		Uranium concentrate
Certification		ISO 14001 certified
Estimated reserves		273.6 million pounds (proven and probable), average grade U_3O_8: 6.91%
Estimated resources		5.4 million pounds (measured and indicated), average grade U_3O_8: 2.65% 2.8 million pounds (inferred), average grade U_3O_8: 2.25%
Licensed capacity		Mine and mill: 25.0 million pounds per year
Licence term		Through October, 2023
Total packaged production:	**2000 to 2018**	325.4 million pounds (McArthur River/Key Lake) (100% basis)
	1983 to 2002	209.8 million pounds (Key Lake) (100% basis)
2018 production		0.1 million pounds (0.2 million pounds on 100% basis)
2019 production outlook		0.0 million pounds (0.0 million pounds on 100% basis)
Estimated decommissioning cost[1]		$38 million – McArthur River (100% basis) $222 million – Key Lake (100% basis)

All values shown, including reserves and resources, represent our share only, unless indicated.
[1] These updated estimates are currently under regulatory review.

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). Active mining was occurring from zone 2 and zone 4 prior to care and maintenance.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into freeze panels and 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.

Zone 4 has been actively mined since 2010. The zone is divided into three mining areas: north, central, and south. Prior to the production suspension, active mining was occurring in the central and north areas and mine development was in progress in the south. Similar to zone 2, the ore zone was divided into freeze panels and the inner connecting freeze walls are decommissioned as new panels are brought on line in order to maximize ore recovery.

Zone 1 is the next planned mine area to be brought into production. Freeze hole drilling was suspended in 2018 as part of the production suspension and will resume following the mine start-up. Work remaining before production can begin includes completion of the freeze drilling, brine distribution construction, ground freezing and drill and extraction chamber development.

We have successfully extracted over 325 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 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.

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. This mining method has been used extensively in the mining industry, including uranium mining. It involves:

- establishing drill access above the ore and extraction access 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
- expanding the circumference of the raise by drilling longholes around the raisebore hole and blasting the ore
- funneling the blasted material into the raisebore hole and dropping it to the extraction level below
- collecting the broken rock by line-of-sight remote-controlled scoop trams, and transporting it to the underground grinding circuit
- once the stope is mined out, backfilling it with concrete to maintain ground stability and allowing the next stope and/or raise to be mined

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

Boxhole mining was tested and approved for use at McArthur River. It is a higher-cost mining method that is not currently being used.

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 12% - 20% 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.

2018 UPDATE

Production

This year, beginning in February, we had a planned production suspension. In response to market conditions, we decided to extend the suspension for an indeterminate duration. The action resulted in the permanent layoff of approximately 520 site employees. A reduced workforce of approximately 200 employees remain at the McArthur River and Key Lake sites to keep the facilities in a state of safe care and maintenance. We incurred approximately $29 million in severance costs as a result of the permanent layoffs. Production from McArthur River/Key Lake for the year was 0.2 million pounds (100% basis); our share was 0.1 million pounds compared to 11.2 million pounds in 2017 due to the production suspension in 2018.

New mining areas

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

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

Exploration

In 2018, all underground infill definition drilling was halted as part of the production suspension.

PLANNING FOR THE FUTURE

Production

Due to continued uranium price weakness, we have suspended production for an indeterminate duration. As a result of the suspension, and the time required to restart the mine and mill, we do not expect the operation to produce any uranium in 2019. Our share of the cash and non-cash costs to maintain both operations during the suspension is expected to range between $7 million and $9 million per month.

Expansion potential

Once the market signals that new supply is needed and a decision is made to restart production, we will undertake the work necessary to optimize the capacity of both the McArthur River mine and Key Lake mill. The annual licensed capacity is 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. These challenges include control of groundwater, weak rock formations, radiation protection, water inflow, mine area transitioning, regulatory approvals, surface and underground fires and other mining related challenges. Operational experience gained since the start of production has resulted in a significant reduction in risk.

Operational changes

The operational changes we have made, including the suspension of production in 2018 for an indeterminate duration, and the associated workforce reduction, carry with them risks of delay in restarting operations and subsequent production disruption.

Labour relations

The collective agreement with the United Steelworkers local 8914 expired in December 2017, and the collective bargaining process has begun. There is a risk to the restart of operations after the production suspension 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 after the restart of operations, we must continue to successfully transition into new mining areas, which includes mine development and investment in critical support infrastructure.

Water inflow risk

Water inflows pose a significant risk to mine production. In 2003, a water inflow resulted in a three-month suspension of production. We also had a small water inflow in 2008 that did not impact production, but did cause significant development delays.

The consequences of another water inflow at McArthur River would depend on its magnitude, location and timing, but could include a significant interruption or reduction in production, a material increase in costs or a loss of mineral reserves.

We take 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 56 to 58.

Uranium – Tier-one operations

Cigar Lake

2018 Production (our share)

9.0M lbs

2019 Production Outlook (our share)

9.0M lbs

Estimated Reserves (our share)

88.3M lbs

Estimated Mine Life

2029

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

Cigar Lake is considered a material uranium property for us.

Location	Saskatchewan, Canada
Ownership	50.025%
Mine type	Underground
Mining method	Jet boring system
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	88.3 million pounds (proven and probable), average grade U_3O_8: 14.48%
Estimated resources	51.0 million pounds (measured and indicated), average grade U_3O_8: 14.41% 11.8 million pounds (inferred), average grade U_3O_8: 5.97%
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 2018	64.9 million pounds (100% basis)
2018 production	9.0 million pounds (18.0 million pounds on 100% basis)
2019 production outlook	9.0 million pounds (18.0 million pounds on 100% basis)
Estimated decommissioning cost[1]	$62 million (100% basis)

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

[1] This updated estimate is currently under regulatory

BACKGROUND

Development

We began developing the Cigar Lake underground mine in 2005, but development was delayed due to water inflows in 2006 and 2008. The underground workings were successfully remediated and secured in 2011 and, in October 2014 the McClean Lake mill produced the first uranium concentrate from ore mined at the Cigar Lake operation. Commercial production was declared in May 2015.

Mine description

Cigar Lake's geological setting is similar to McArthur River's: the permeable sandstone, which overlays the deposit and basement rocks, contains large volumes of water at significant pressure. However, unlike McArthur River, the Cigar Lake deposit has the shape of a flat- to cigar-shaped lens. As a result of these challenging geological conditions, we are unable to utilize traditional mining methods that require access above the ore, necessitating the development of a non-entry mining method specifically adapted for this deposit: the Jet Boring system (JBS).

We continue development below the mineralization and we are currently mining in the eastern part of the ore body.

Mining method

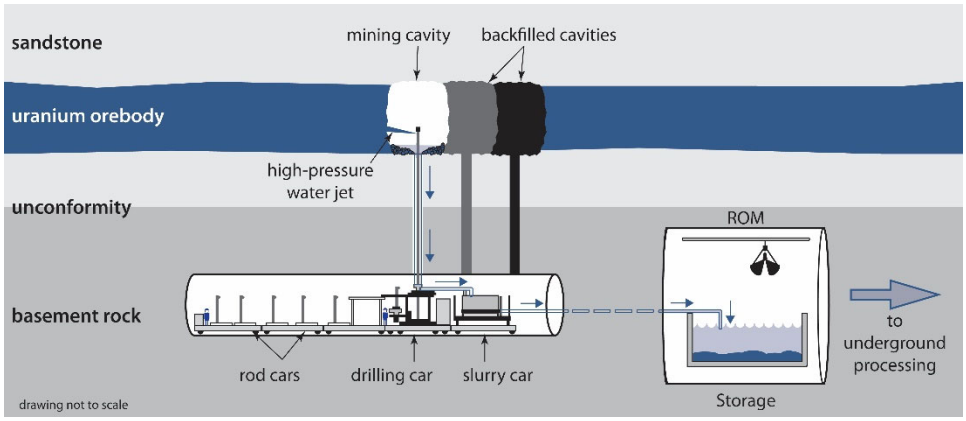
Bulk ground freezing

The sandstone that overlays the deposit and basement rocks is water-bearing, and to prevent water from entering the mine, help stabilize weak rock formations, and meet our production schedule, we freeze the ground from surface. The ore zone and surrounding ground in the area to be mined must meet specific ground freezing requirements before we begin jet boring.

Jet boring system (JBS) mining

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

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



We have divided the orebody into production panels and at least three production panels need to be frozen at one time to achieve the 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 actively mine at any given time while the third is moving, setting up, or undergoing maintenance.

Initial processing

We carry out initial processing of the extracted ore at Cigar Lake:

- the underground circuit grinds the ore and mixes it with water to form a slurry
- the slurry is pumped 500 metres to the surface and stored in one of two ore slurry holding tanks
- it is blended and thickened, removing excess water
- the final slurry, at an average grade of approximately 14% U_3O_8, is pumped into transport truck containers and shipped to McClean Lake mill on a 69 kilometre all-weather road

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

Milling

All of Cigar Lake's ore slurry is being processed at the McClean Lake mill, operated by Orano. Given the McClean Lake mill's capacity, it is able to:

- operate at Cigar Lake's targeted annual production level of 18.0 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 million pounds (100% basis) per year. Orano's McClean Lake mill is licensed to produce 24 million pounds annually.

2018 UPDATE

Production

Total packaged production from Cigar Lake was 18.0 million pounds U_3O_8; our share was 9.0 million pounds, achieving our forecast.

During the year, we:

- advanced the freeze plant expansion project, achieving substantial completion of construction and commencement of the commissioning phase
- implemented an extended summer shutdown, during which maintenance activities were completed as well as a capital upgrade to process pumps underground
- refurbished a JBS unit and brought two new production tunnels online
- extended our surface brine distribution infrastructure and expanded our ground freezing program ensuring continued frozen ore inventory growth in alignment with our long-term production plans

Underground development

In alignment with our production plans, limited underground mine development was undertaken in 2018. Mine development required to sustain long-term production will re-commence in 2019.

PLANNING FOR THE FUTURE

Production

In 2019, we expect to produce 18 million packaged pounds at Cigar Lake; our share is 9.0 million pounds.

In alignment with our continued efforts to reduce costs, our 2019 production plan for the Cigar Lake mine includes an extended shutdown 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, preceded by a two-week maintenance period with mine start-up planned before the end of the third quarter.

In 2019, we expect to:

- continue surface freeze drilling and complete construction and commissioning of the freeze plant infrastructure expansion in support of future production
- resume underground mine development and complete two new production tunnels as well as expand ventilation and access drifts in alignment with the long-term mine plan

MANAGING OUR RISKS

Cigar Lake is a challenging deposit to develop and mine. These challenges include control of groundwater, weak rock formations, radiation protection, chemical ore characteristics, performance of the water treatment system, water inflow, regulatory approvals, surface and underground fires and other mining-related challenges. To reduce this risk, we are applying our operational experience and the lessons we have learned about water inflows at McArthur River and Cigar Lake.

Operational changes

The operational changes we have made, including the extended summer shutdown, the workforce reduction, changes to the shift rotation schedule, and changes to the commuter flight services at the site, which are intended to achieve cost savings and improve efficiency, carry with them increased risk of production disruption.

Labour relations

The collective agreement between Orano and unionized employees at the McClean Lake mill expires on May 31, 2019. There is a risk to the production plan if Orano is unable to reach an 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.

Ground freezing

To manage our risks and meet our production schedule, the areas being mined must meet specific ground freezing requirements before we begin jet boring. We have identified greater variation of the freeze rates of different geological formations encountered in the mine, based on information obtained through surface freeze drilling. As a mitigation measure, we have increased the site freeze capacity to facilitate the mining of ore cavities as planned.

Environmental performance

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

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

Water inflow risk

A significant risk to development and production is from water inflows. The 2006 and 2008 water inflows were significant setbacks.

The consequences of another water inflow at Cigar Lake would depend on its magnitude, location and timing, but could include a significant delay or disruption in Cigar Lake production, a material increase in costs or a loss of mineral reserves.

We take the following steps to reduce the risk of inflows, but there is no guarantee that these will be successful:

- Bulk freezing: Two of the primary challenges in mining the deposit are control of groundwater and ground support. Bulk freezing reduces but does not completely eliminate the risk of water inflows.
- Mine development: We plan for our mine development to take place away from known groundwater sources whenever possible. In addition, we assess all planned mine development for relative risk and apply extensive additional technical and operating controls for all higher risk development.
- Pumping capacity and treatment limits: We have pumping capacity to meet our standard for this operation of at least one and a half times the estimated maximum inflow.

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

We also manage the risks listed on pages 56 to 58.

Uranium – Tier-one operations

Inkai

2018 Production (100% basis)

6.9 M lbs

2019 Production Outlook (100% basis)

8.3 M lbs

Estimated Reserves (our share)

104.6M lbs

Estimated Mine Life

2045 *(based on licence term)*

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

Inkai is considered a material uranium property for us.

Location	South Kazakhstan
Ownership	40%[1]
Mine type	In situ recovery (ISR)
End product	Uranium concentrate
Certifications	BSI OHSAS 18001 ISO 14001 certified
Estimated reserves	104.6 million pounds (proven and probable), average grade U_3O_8: 0.03%
Estimated resources	12.8 million pounds (measured and indicated), average grade U_3O_8: 0.03% 30 million pounds (inferred), average grade U_3O_8: 0.03%
Licensed capacity (wellfields)	10.4 million pounds per year (our share 4.2 million pounds per year)[1]
Licence term	Through July 2045
Total packaged production: 2009 to 2018	49.2 million pounds (100% basis)
2018 production	6.9 million pounds (100% basis)
2019 production outlook	8.3 million pounds (100% basis)[1]
Estimated decommissioning cost (100% basis)	$11 million (US) (100% basis) (this estimate is currently under review)

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

[1] Effective January 1, 2018, our ownership interest in the joint venture dropped to 40% and we now equity account for our investment. Due to the transition to equity accounting, our share of production is shown as a purchase.

BACKGROUND

Mine description

The Inkai uranium deposit is a roll-front type orebody within permeable sandstones. The more porous and permeable units host several stacked and relatively continuous, sinuous “roll-fronts” of low-grade uranium forming a regional system. Superimposed over this regional system are several uranium projects and active mines.

Inkai’s mineralization ranges in depths from about 260 metres to 530 metres. The deposit has a surface projection of about 40 kilometres in length, and the width ranges from 40 to 1600 metres. The deposit has hydrogeological and mineralization conditions favorable for use of in-situ recovery (ISR) technology.

Mining and milling method

JV Inkai uses conventional, well-established, and very efficient ISR technology, developed after extensive test work and operational experience. The process involves five major steps:

- leach the uranium in-situ by circulating an acid-based solution through the host formation
- recover it from solution with ion exchange resin (takes place at both main and satellite processing plants)
- precipitate the uranium with hydrogen peroxide
- thicken, dewater, and dry it
- package the uranium peroxide product in drums

Production

Total 2018 production from Inkai was 6.9 million pounds (100% basis), an increase from 2017. While the production volume was in accordance with Kazatomproms's planned 20% decrease to the licensed production profile under the terms of the subsoil use contract, the subsoil use contract called for higher production in 2018 compared to 2017. The subsoil use law in Kazakhstan allows producers to produce within 20% (above or below) of their licensed capacity in a year.

Project funding

We have an outstanding loan for Inkai's work on block 3 prior to the restructuring and, as of December 31, 2018, the principal and interest amounted to $91 million (US). Under the restructuring agreement, the partners have agreed that JV Inkai will distribute excess cash first as priority repayment of this loan. To date in 2019, payments of $29 million (US) have been received.

JV Inkai Restructuring Agreement

In 2016, we signed an agreement with our partner Kazatomprom and JV Inkai to restructure and enhance JV Inkai. The restructuring closed in December 2017 and took effect January 1, 2018. This restructuring was subject to obtaining all required government approvals including an amendment to JV Inkai's Resource Use Contract, which were obtained. The restructuring consisted of the following:

- JV Inkai has the right to produce 10.4 million pounds of U_3O_8 per year, an increase from the prior licensed annual production of 5.2 million pounds
- JV Inkai has the right to produce until 2045 (previously, the licence terms, based on the boundaries prior to the restructuring, were to 2024 and 2030)
- our ownership interest in JV Inkai is 40% and Kazatomprom's share is 60%. However, during production rampup, we are entitled to purchase 57.5% of the first 5.2 million pounds. As annual production increases above 5.2 million pounds, we are 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 share in all production will be 40%, matching our ownership interest.
- a governance framework that provides protection for us as a minority owner
- the boundaries of the mining area 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 the historically defined block 3 area provides for priority repayment

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

Our 2019 financial outlook is presented on the basis of equity accounting for our minority ownership interest in JV Inkai. Under equity accounting, our share of the profits earned by JV Inkai on the sale of its production are included in "income from equity-accounted investees" on our consolidated statement of earnings. Our share of production is purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures. Please see *JV Inkai Planning for the future* below for more details.

PLANNING FOR THE FUTURE

Production

We expect total production from Inkai to be 8.3 million pounds (100% basis) in 2019. We have the right to purchase 3.7 million pounds at a discount to the spot price, which will be included in inventory at this value at the time of delivery in accordance with equity accounting. Our share of the profits earned by JV Inkai on the sale of its production will be included in “income from equity-accounted investees” on our consolidated statement of earnings.

MANAGING OUR RISKS

Political risk

Kazakhstan declared itself independent in 1991 after the dissolution of the Soviet Union. Our investment in JV Inkai is subject to the greater risks associated with doing business in developing countries, which have significant potential for social, economic, political, legal and fiscal instability. Kazakh laws and regulations are complex and still developing and their application can be difficult to predict. The other owner of JV Inkai is Kazatomprom, an entity majority owned by the government of Kazakhstan. We have entered into agreements with JV Inkai and Kazatomprom intended to mitigate political risk. This risk includes the imposition of governmental laws or policies that could restrict or hinder JV Inkai repaying the block 3 loan, paying us dividends, or selling us our share of JV Inkai production, or that impose discriminatory taxes or currency controls on these transactions. The restructuring of JV Inkai, which took effect January 1, 2018, was undertaken with the objective to better align the interests of Cameco and Kazatomprom and includes a governance framework that provides for protection for us as a minority owner of JV Inkai. We believe the political risk related to our investment in JV Inkai is manageable.

For more details on this risk, please our most recent annual information form under the heading political risks.

JV Inkai manages risks listed on pages 56 to 58.

Uranium – Tier-two curtailed operations

Rabbit Lake

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

Location	Saskatchewan, Canada
Ownership	100%
End product	Uranium concentrates
ISO certification	ISO 14001 certified
Mine type	Underground
Estimated reserves	-
Estimated resources	38.6 million pounds (indicated), average grade U_3O_8: 0.95% 33.7 million pounds (inferred), average grade U_3O_8: 0.62%
Mining methods	Vertical blasthole stoping
Licensed capacity	Mill: maximum 16.9 million pounds per year; currently 11 million
Licence term	Through October, 2023
Total production: 1975 to 2018	202.2 million pounds
2018 production	0 million pounds
2019 production outlook	0 million pounds
Estimated decommissioning cost[1]	$213 million

[1] This updated estimate is currently under regulatory review.

PRODUCTION SUSPENSION

The facilities remained in a state of safe and sustainable care and maintenance throughout 2018. As a result, there was no production in 2018.

While in standby, we continue to evaluate our options in order to minimize care and maintenance costs. We expect care and maintenance costs to range between $30 million and $35 million annually.

IMPAIRMENT

In 2016, as a result of the production suspension, we recognized an impairment charge for the full carrying value of $124 million.

US ISR Operations

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

Ownership		100%
End product		Uranium concentrates
ISO certification		ISO 14001 certified
Estimated reserves	*Smith Ranch-Highland:*	-
	North Butte-Brown Ranch:	-
	Crow Butte:	-
Estimated resources	*Smith Ranch-Highland:*	24.9 million pounds (measured and indicated), average grade U_3O_8: 0.06% 7.7 million pounds (inferred), average grade U_3O_8: 0.05%
	North Butte-Brown Ranch:	9.5 million pounds (measured and indicated), average grade U_3O_8: 0.07% 0.4 million pounds (inferred), average grade U_3O_8: 0.07%
	Crow Butte:	13.9 million pounds (measured and indicated), average grade U3O8: 0.25% 1.8 million pounds (inferred), average grade U3O8: 0.16%
Mining methods		In situ recovery (ISR)
Licensed capacity	*Smith Ranch-Highland:*[1]	Wellfields: 3 million pounds per year; processing plants: 5.5 million pounds per year
	Crow Butte:	Processing plants and wellfields: 2 million pounds per year
Licence term	*Smith Ranch-Highland:*	Through September, 2028
	Crow Butte:	Through October, 2024
Total production: 2002 to 2018		33.0 million pounds
2018 production		0.1 million pounds
2019 production outlook		0 million pounds
Estimated decommissioning cost		Smith Ranch-Highland: $224 million (US), including North Butte
		Crow Butte: $51 million (US)

[1] Including Highland mill

PRODUCTION AND CURTAILMENT

As a result of our 2016 decision, production at the US operations ceased in 2018 resulting in production of less than 100,000 pounds.

On September 30, the Nuclear Regulatory Commission approved a 10-year renewal of the operating licence for Smith Ranch-Highland. The licence is valid until September 30, 2028.

FUTURE PRODUCTION

We do not expect any production in 2019.

IMPAIRMENT

In 2017, due to the continued weakening of the uranium market and a reduction in mineral reserves, we recorded a $184 million write down of our US assets.

MANAGING OUR RISKS

We manage the risks listed on pages 56 to 58.

Uranium – advanced projects

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

Millennium

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

BACKGROUND

The Millennium deposit was discovered in 2000, and was delineated through geophysical survey and surface drilling work between 2000 and 2013.

Yeelirrie

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

BACKGROUND

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

Kintyre

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

BACKGROUND

The Kintyre deposit was discovered in 1985 and is amenable to open pit mining techniques. In 2018, we increased our ownership from 70% to 100%.

2018 PROJECT UPDATES

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

PLANNING FOR THE FUTURE

2019 Planned activity

No work is planned at Millennium, Yeelirrie or Kintyre. Further progress towards a development decision is not expected until market conditions improve.

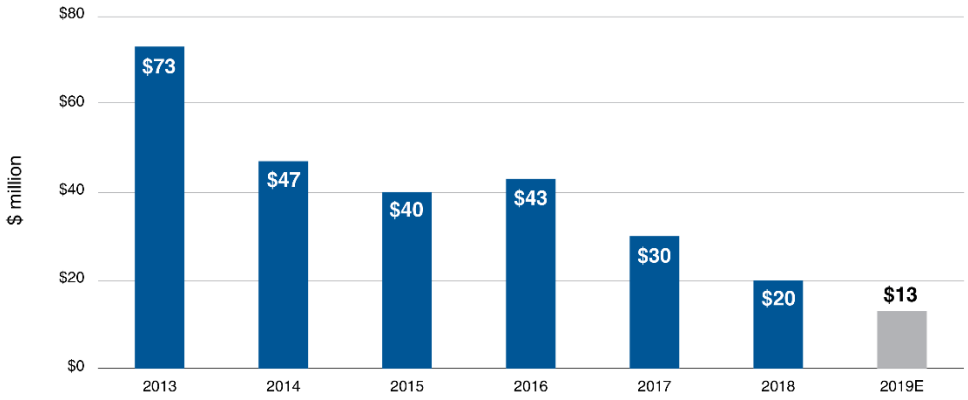
MANAGING THE RISKS

For all of our advanced projects, we manage the risks listed on pages 56 to 58.

Uranium – exploration and corporate development

Our exploration program is directed at replacing mineral reserves as they are depleted by our production, and is key to sustaining our business. However, during this period of weak uranium prices, and as we have ample idled production capacity, we have reduced our spending to focus only on exploration near our existing operations where we have established infrastructure and capacity to expand. Globally, we have land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia and the US. Our land holdings total about 0.7 million hectares (1.7 million acres). In northern Saskatchewan alone, we have direct interests in about 0.6 million hectares (1.6 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin.

EXPLORATION AND EVALUATION SPENDING



2018 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 2018, we spent about $4 million on brownfields and advanced uranium projects in Saskatchewan and Australia. At the US operations we spent $1 million.

Regional exploration

We spent about $15 million on regional exploration programs (including support costs), primarily in Saskatchewan's Athabasca Basin.

PLANNING FOR THE FUTURE

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

ACQUISITION PROGRAM

Currently, given the conditions in the uranium market, our extensive portfolio of reserves and resources and our belief that we have ample idle production capacity, our focus is on maintaining our investment-grade rating and preserving the value of 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.

However, we continually evaluate acquisition opportunities within the nuclear fuel cycle that could add to our future supply options, support our sales activities, and complement and enhance our business in the nuclear industry. We will 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. As such, 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 14.

Fuel services

Refining, conversion and fuel manufacturing

We control about 25% of world UF_6 primary conversion capacity and are a supplier of natural UO_2. Our focus is on cost-competitiveness and operational efficiency.

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

Blind River Refinery

Licensed Capacity

24.0M kgU as UO_3

Licence renewal in

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

Port Hope Conversion Services

Licensed Capacity

12.5M kgU as UF_6

2.8M kgU as UO_2

Licence renewal in

Feb, 2027

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

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

Cameco Fuel Manufacturing Inc. (CFM)

Licensed Capacity

1.2M kgU as UO_2 as fuel bundles

Licence renewal in

Feb, 2022

CFM produces fuel bundles and reactor components for CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	CANDU fuel bundles and components
ISO certification	ISO 9001 certified, ISO 14001 certified
Licensed capacity	1.2 million kgU as UO_2 as finished bundles
Licence term	Through February, 2022
Estimated decommissioning cost	$21 million

2018 UPDATE

Production

Fuel services produced 10.5 million kgU, 33% higher than 2017. This was a result of increased demand.

Port Hope conversion facility cleanup and modernization (Vision in Motion)

We began implementation activities and made significant progress on the Vision in Motion project in 2018. In 2019, we will continue with the detailed engineering and implementation work.

Labour relations

Unionized employees represented by United Steel Workers Local 14193, at CFM's operations in Ontario, accepted a new three-year collective agreement. The previous contract expired May 30, 2018.

PLANNING FOR THE FUTURE

Production

We plan to produce between 12 million and 13 million kgU in 2019.

MANAGING OUR RISKS

Labour relations

The collective agreement with unionized employees at our conversion facility in Port Hope expires in June 2019. There is a risk to our production plans if we are unable to reach an agreement and there is a labour disruption.

We also manage the risks listed on pages 56 to 58.

Mineral reserves and resources

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

We have interests in a number of uranium properties. The tables in this section show the estimates of the proven and probable mineral reserves, and measured, indicated, and inferred mineral resources at those properties. However, only three of the properties listed in those tables are material uranium properties for us: McArthur River/Key Lake, Cigar Lake and Inkai. Mineral reserves and resources are all reported as of December 31, 2018.

We estimate and disclose mineral reserves and resources in five categories, using the definition standards adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council, and in accordance with *National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101),* developed by the Canadian Securities Administrators. You can find out more about these categories at www.cim.org.

About mineral resources

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

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

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

About mineral reserves

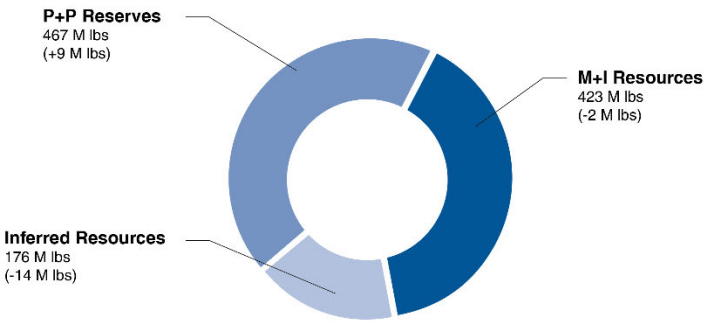
Mineral reserves are the economically mineable part of measured and/or indicated mineral resources demonstrated by at least a preliminary feasibility study. The reference point at which mineral reserves are defined is the point where the ore is delivered to the processing plant, except for ISR operations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

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

We use current geological models, an average uranium price of $44 (US) per pound U_3O_8, and current or projected operating costs and mine plans to report our mineral reserves, allowing for dilution and mining losses. We apply our standard data verification process for every estimate.

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

PROVEN AND PROBABLE (P+P) RESERVES, MEASURED AND INDICATED (M+I) RESOURCES, INFERRED RESOURCES
(SHOWING CHANGE FROM 2017)
at December 31, 2018



Changes this year

Our share of proven and probable mineral reserves increased from 458 million pounds U_3O_8 at the end of 2017, to 467 million pounds at the end of 2018. The change was primarily the result of:

- McArthur River's zone B mineral resource update which added approximately 23.8 million pounds of proven and probable reserves

partially offset by:

- production, which removed 12.3 million pounds from our mineral inventory
- other minor adjustments at Cigar Lake and McArthur River

Measured and indicated mineral resources decreased from 425 million pounds U_3O_8 at the end of 2017, to 423 million pounds at the end of 2018. Our share of inferred mineral resources is 176 million pounds U_3O_8, a decrease of 14 million pounds from the end of 2017. The variance in mineral resources was mainly the result of:

- the sale of our interest in the Wheeler River Joint Venture which resulted in a reduction of 18.7 million pounds of indicated and 11.8 million pounds of inferred resources
- removal of 0.7 million pounds of measured, 1.3 million pounds of indicated and 1.1 million pounds of inferred resources from the US ISR operations following a review of economic parameters
- reduction of 3.1 million pounds of inferred resources from McArthur River

partially offset by:

- an increase in our ownership in the Kintyre project from 70% to 100% which added 16.1 million pounds of indicated and 1.8 million pounds of inferred resources

Qualified persons

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

MCARTHUR RIVER/KEY LAKE

- Greg Murdock, general manager, McArthur River/Key Lake, Cameco
- Alain D. Renaud, lead geologist, technical services, Cameco
- Linda Bray, principal metallurgist, technical services, Cameco

CIGAR LAKE

- Lloyd Rowson, general manager, Rabbit Lake/Cigar Lake, Cameco
- Scott Bishop, director, technical services, Cameco
- Alain D. Renaud, lead geologist, technical services, Cameco
- Linda Bray, principal metallurgist, technical services, Cameco

INKAI

- Dr. Darryl Clark, consultant geologist
- Alain D. Renaud, lead geologist, technical services, Cameco
- Linda Bray, 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 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

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

Mineral reserves

As at December 31, 2018 (100% – only the shaded column shows our share)

PROVEN AND PROBABLE

(tonnes in thousands; pounds in millions)

		PROVEN			PROBABLE			TOTAL MINERAL RESERVES			OUR SHARE RESERVES	
PROPERTY	MINING METHOD	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	CONTENT (LBS U_3O_8)	METALLURGICAL RECOVERY (%)
Cigar Lake	UG	171.0	15.74	59.4	382.1	13.91	117.2	553.1	14.48	176.6	**88.3**	99
Key Lake	OP	61.1	0.52	0.7	-	-	-	61.1	0.52	0.7	**0.6**	99
McArthur River	UG	2,034.0	7.14	320.2	538.5	6.04	71.7	2,572.5	6.91	391.9	**273.6**	99
Inkai	ISR	205,349.0	0.04	164.3	155,529.5	0.03	97.2	360,878.5	0.03	261.6	**104.6**	85
Total		**207,615.1**	**-**	**544.6**	**156,450.1**	**-**	**286.1**	**364,065.2**	**-**	**830.8**	**467.1**	**-**

(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 a constant dollar average uranium price of approximately $44 (US) per pound U_3O_8
- are based on exchange rates of $1.00 US=$1.25 Cdn and 298 Kazakhstan Tenge to $1.00 Cdn

Our estimate of mineral reserves and mineral resources may be positively or negatively affected by the occurrence of one or more of the material risks discussed under the heading *Caution about forward-looking information* beginning on page 2, as well as certain property-specific risks. See *Uranium - operations* starting on page 60.

Metallurgical recovery

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

Mineral resources

As at December 31, 2018 (100% – only the shaded columns show our share)

MEASURED, INDICATED AND INFERRED

(tonnes in thousands; pounds in millions)

	MEASURED RESOURCES (M)			INDICATED RESOURCES (I)				OUR SHARE	INFERRED RESOURCES			OUR SHARE
PROPERTY	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TOTAL M+I CONTENT (LBS U_3O_8)	TOTAL M+I CONTENT (LBS U_3O_8)	TONNES	GRADE % U3O8	CONTENT (LBS U_3O_8)	INFERRED CONTENT (LBS U_3O_8)
Cigar Lake	14.2	11.91	3.7	307.1	14.52	98.3	102.0	51.0	180.0	5.97	23.7	11.8
Fox Lake	-	-	-	-	-	-	-	-	386.7	7.99	68.1	53.3
Kintyre	-	-	-	3,897.7	0.62	53.5	53.5	53.5	517.1	0.53	6.0	6.0
McArthur River	97.8	2.57	5.5	35.1	2.86	2.2	7.8	5.4	80.5	2.25	4.0	2.8
Millennium	-	-	-	1,442.6	2.39	75.9	75.9	53.0	412.4	3.19	29.0	20.2
Rabbit Lake	-	-	-	1,836.5	0.95	38.6	38.6	38.6	2,460.9	0.62	33.7	33.7
Tamarack	-	-	-	183.8	4.42	17.9	17.9	10.3	45.6	1.02	1.0	0.6
Yeelirrie	27,172.9	0.16	95.9	12,178.3	0.12	32.2	128.1	128.1	-	-	-	-
Crow Butte	1,607.3	0.19	6.7	939.3	0.35	7.3	13.9	13.9	531.4	0.16	1.8	1.8
Gas Hills - Peach	687.2	0.11	1.7	3,626.1	0.15	11.6	13.3	13.3	3,307.5	0.08	6.0	6.0
Inkai	36,680.9	0.03	21.3	21,132.2	0.02	10.7	32.0	12.8	116,394.6	0.03	75.0	30.0
North Butte - Brown Ranch	621.7	0.08	1.1	5,530.3	0.07	8.4	9.5	9.5	294.5	0.07	0.4	0.4
Ruby Ranch	-	-	-	2,215.3	0.08	4.1	4.1	4.1	56.2	0.14	0.2	0.2
Shirley Basin	89.2	0.16	0.3	1,638.2	0.11	4.1	4.4	4.4	508.0	0.10	1.1	1.1
Smith Ranch - Highland	3,712.4	0.10	7.9	14,372.3	0.05	17.0	24.9	24.9	6,861.0	0.05	7.7	7.7
Total	**70,683.6**	**-**	**144.1**	**69,334.8**	**-**	**381.8**	**525.9**	**422.8**	**132,036.4**	**-**	**257.7**	**175.6**

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, 2018, 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, 2018. We have not made any change to our internal control over financial reporting during the 2018 fiscal year that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

New standards adopted

On January 1, 2018, we adopted the following new standards as issued by the International Accounting Standards Board (IASB) in accordance with the transitional provisions.

IFRS 15, *Revenue from Contracts with Customers* (IFRS 15) – IFRS 15 clarifies the principles for recognizing revenue from contracts with customers. We adopted IFRS 15 using the cumulative effect method without practical expedients which does not require comparative financial statements to be restated. As the adoption of the new standard did not have a material impact on our existing revenue recognition practices, there was no cumulative effect on net earnings at January 1, 2018 that would have required restatement. The new standard did result in additional disclosures.

IFRS 9, *Financial Instruments* (IFRS 9) –IFRS 9 includes revised guidance on the classification and measurement of financial assets. While it largely retains the existing requirements in IAS 39, *Financial Instruments: Recognition and Measurement* for the classification and measurement of financial liabilities, it eliminates the previous categories for financial assets of held to maturity, loans and receivables and available for sale. Upon adoption, we reclassified our financial instruments as follows:

	Original classification under IAS 39	New classification under IFRS 9
Financial assets		
Cash and cash equivalents	Loans and receivables	Amortized cost
Accounts receivable	Loans and receivables	Amortized cost
Derivative assets	FVTPL	FVTPL
Investments in equity securities	Available for sale	FVOCI
Advances receivable from Inkai	Loans and receivables	Amortized cost
Financial liabilities		
Accounts payable and accrued liabilities	Other financial liabilities	Amortized cost
Dividends payable	Other financial liabilities	Amortized cost
Derivative liabilities	FVTPL	FVTPL
Long-term debt	Other financial liabilities	Amortized cost

There was no impact on the measurement of any of these instruments at the date of transition. We did not have any financial assets or liabilities previously designated as measured at FVTPL that are no longer so designated.

The new standard also includes a new expected credit loss model for calculating impairment on financial assets. This change did not have a material impact on the consolidated financial statements.

IFRS 9 also introduces new hedge accounting requirements. Since we do not apply hedge accounting, there was no impact on the consolidated financial statements.

New standards and interpretations not yet adopted

A new standard and a new interpretation are not yet effective for the year ended December 31, 2018, and have not been applied in preparing the consolidated financial statements. We do not intend to early adopt the following standard or interpretation, unless otherwise noted.

IFRS 16, *Leases* (IFRS 16) – In January 2016, the IASB issued 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. Our assessment of the new standard included the review of contracts to identify arrangements that could contain leases that qualify for recognition under IFRS 16. This review also considered contracts containing embedded leases of right-of-use assets. Based on our assessment, which is substantially complete, we determined that we do not expect adoption of the standard to have a material impact on the financial statements, however we do expect to have additional disclosures.

IFRIC 23, *Uncertainty over Income Tax Treatments* (IFRIC 23) – In June 2017, the IASB issued IFRIC 23. IFRIC 23 is effective for periods beginning on or after January 1, 2019 with early adoption permitted. IFRIC 23 provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments. We do not expect adoption of the standard to have a material impact on the financial statements.