Cameco Corporation

2011 Annual information form

February 24, 2012

Contents

Important information about this document

This annual information form (AIF) provides important information about Cameco Corporation. It describes our history, our markets, our operations and development projects, our mineral reserves and resources, sustainability, our regulatory environment, the risks we face in our business and the market for our shares, among other things.

It also incorporates by reference:

- our management's discussion and analysis (MD&A) for the year ended December 31, 2011 (2011 MD&A), which is available on SEDAR (sedar.com) and on EDGAR (sec.gov) as an exhibit to our Form 40-F
- our audited consolidated financial statements for the year ended December 31, 2011 (2011 financial statements) which is also available on SEDAR and on EDGAR as an exhibit to our Form 40-F.

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

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

Reporting currency and financial information

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

On January 1, 2011, we adopted International Financial Reporting Standards (IFRS), which have become the generally accepted accounting principles required to be used by most Canadian publicly accountable enterprises, and we have presented financial information in this AIF in accordance with IFRS. Amounts relating to the year ended December 31, 2010 have been revised to reflect our adoption of IFRS. Amounts for periods prior to January 1, 2010 are presented in accordance with Canadian generally accepted accounting principles (Canadian GAAP) in effect prior to 2011.

The presentation and terminology used in our 2011 financial statements and this AIF differ from that used in previous years. Details of the more significant accounting differences can be found in note 3 to our 2011 financial statements.

Caution about forward-looking information

Our AIF and the documents incorporated by reference include statements and information about our expectations for the future. When we discuss our strategy, plans and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be forward-looking information or forward-looking statements under Canadian and US securities laws. We refer to them in this AIF as forward-looking information.

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

- It typically includes words and phrases about the future, such as *believe*, *estimate*, *anticipate*, *expect*, *plan*, *intend*, *predict*, *goal*, *target*, *forecast, project*, *scheduled, potential*, *strategy* and *proposed* (see examples on page 2).
- It is based on a number of material assumptions, including those we have listed below, which may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, because of the risks associated with our business. We list a number of these material risks below. We recommend you also review other parts of this document, including *Risks that can affect our business* starting on page 99, and our 2011 MD&A, which include a discussion of other material risks that could cause our actual results to differ from current expectations.

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

Examples of forward-looking information in this AIF

- our expectations about 2012 and future worldwide uranium supply, consumption and demand
- production at our uranium operations in 2012 and our target for increasing annual uranium production to 40 million pounds by 2018
- our ability to maintain expected annual production at McArthur River and Key Lake
- our expectations regarding Cigar Lake
- our expectation that Inkai will receive all the necessary approvals and permits to meet its 2012 and future annual production targets
- forecasts relating to mining, development and other activities at our uranium operations
- future production at our fuel services operations
- the likely terms and volumes to be covered by long-term delivery contracts that we enter into in 2012 and future years
- future royalty and tax payments and rates
- our mineral reserve and resource estimates

Material risks

- actual sales volumes or realized prices for any of our products or services are lower than we expect for any reason, including changes in market prices or loss of market share to a competitor
- we are adversely affected by changes in foreign currency exchange rates, interest rates or tax rates
- production costs are higher than planned, or necessary supplies are not available, or not available on commercially reasonable terms
- our estimates of production, purchases, costs, decommissioning or reclamation expenses, or our tax expense estimates, prove to be inaccurate
- we are unable to enforce our legal rights under our existing agreements, permits or licences, or are subject to litigation or arbitration that has an adverse outcome
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or we face unexpected or challenging geological, hydrological or mining conditions
- we are affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays
- we cannot obtain or maintain necessary permits or approvals from government authorities
- we are affected by political risks in a developing country where we operate
- we are affected by terrorism, sabotage, blockades, civil unrest, accident or a deterioration in political support for, or demand for, nuclear energy
- we are affected by changes in the regulation or public perception of the safety of nuclear power plants, which adversely affect the construction of new plants, the relicensing of existing plants and the demand for uranium
- there are changes to government regulations or policies, including tax and trade laws and policies
- our uranium and conversion suppliers fail to fulfill delivery commitments
- our Cigar Lake development, mining or production plans are delayed or do not succeed, including as a result of any difficulties encountered with the jet boring mining method or our inability to acquire any of the required jet boring equipment
- 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 customers' facilities, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, lack of tailings capacity, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave ins, ground movements, tailings dam failures, transportation disruptions or accidents or other development and operating risks

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium, fuel services and electricity
- our expectations about the demand for uranium
- expected production levels and production costs
- expected spot prices and realized prices for uranium
- our expectations regarding tax rates, foreign currency exchange rates and interest rates
- decommissioning and reclamation expenses
- our mineral reserve and resource estimates and the assumptions upon which they are based are reliable
- geological, hydrological and other conditions at our mines
- our Cigar Lake development, mining and production plans succeed, including the success of the jet boring mining method at Cigar Lake, and that we will be able to obtain the additional jet boring system units we require on schedule
- our expectation that we will be able to solve technical challenges that may arise with the jet boring mining method
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our ability to comply with current and future environmental, safety and other regulatory requirements, and to obtain and maintain required regulatory approvals

- 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, equipment failure, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave ins, ground movements, tailings dam failures, lack of tailings capacity, transportation disruptions or accidents or other development or operating risks

About Cameco

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

Vision and strategy

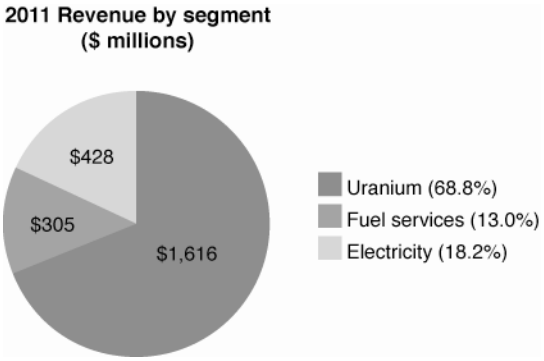
Our vision is to be a dominant nuclear energy company producing uranium fuel and generating clean electricity. Our goal is to be the supplier, partner, investment and employer of choice in the nuclear industry.

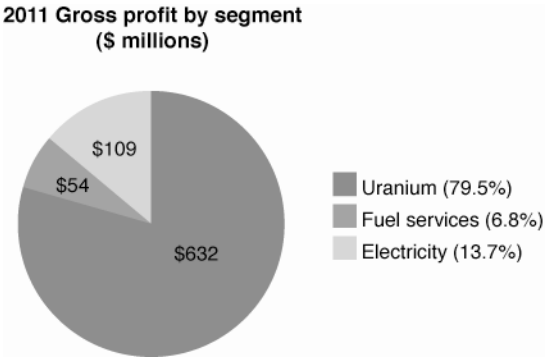
Our strategy is to increase annual uranium production to 40 million pounds by 2018 and to invest in opportunities across the nuclear fuel cycle that we expect will complement and enhance our business. You can find more information about our strategy in our 2011 MD&A.

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

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

We are publicly listed on the Toronto and New York stock exchanges, and had a total of 3,470 employees at December 31, 2011, not including Inkai.





Uranium

We are one of the world's largest uranium producers, and in 2011 accounted for about 16% of the world's production. We have controlling ownership of the world's largest high-grade reserves, with ore grades up to 100 times the world average, and low-cost operations.

Product
- uranium concentrates (U_3O_8)

Mineral reserves and resources
Mineral reserves
- approximately 435 million pounds proven and probable

Mineral resources
- approximately 254 million pounds measured and indicated
- approximately 318 million pounds inferred

Operating properties
- McArthur River and Key Lake, Saskatchewan
- Rabbit Lake, Saskatchewan
- Smith Ranch-Highland, Wyoming
- Crow Butte, Nebraska
- Inkai, Kazakhstan

Development project
- Cigar Lake, Saskatchewan

Projects under evaluation
- Inkai blocks 1 and 2 production increase, Kazakhstan
- Inkai block 3, Kazakhstan
- McArthur River extension, Saskatchewan
- Kintyre, Australia
- Millennium, Saskatchewan

Global exploration
- focused on four continents
- approximately 5 million hectares of land

Fuel services

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

Products
- uranium trioxide (UO_3)
- uranium hexafluoride (UF_6) (control about 25% of world conversion capacity)
- uranium dioxide (UO_2) (the world's only commercial supplier of natural UO_2)
- fuel bundles, reactor components and monitoring equipment used by Candu reactors

Operations
- Blind River refinery, Ontario (refines uranium concentrates to UO_3)
- Port Hope conversion facility, Ontario (converts UO_3 to UF_6 or UO_2)
- Cameco Fuel Manufacturing Inc. (CFM), Ontario (manufactures fuel bundles and reactor components)
- a toll conversion agreement with Springfields Fuels Ltd. (SFL), Lancashire, United Kingdom (UK) (to convert UO_3 to UF_6) - expires in 2016

We also have a 24% interest in Global Laser Enrichment (GLE) in North Carolina, with General Electric (51%) and Hitachi Ltd. (25%). GLE is testing a third-generation technology that, if successful, will use lasers to commercially enrich uranium.

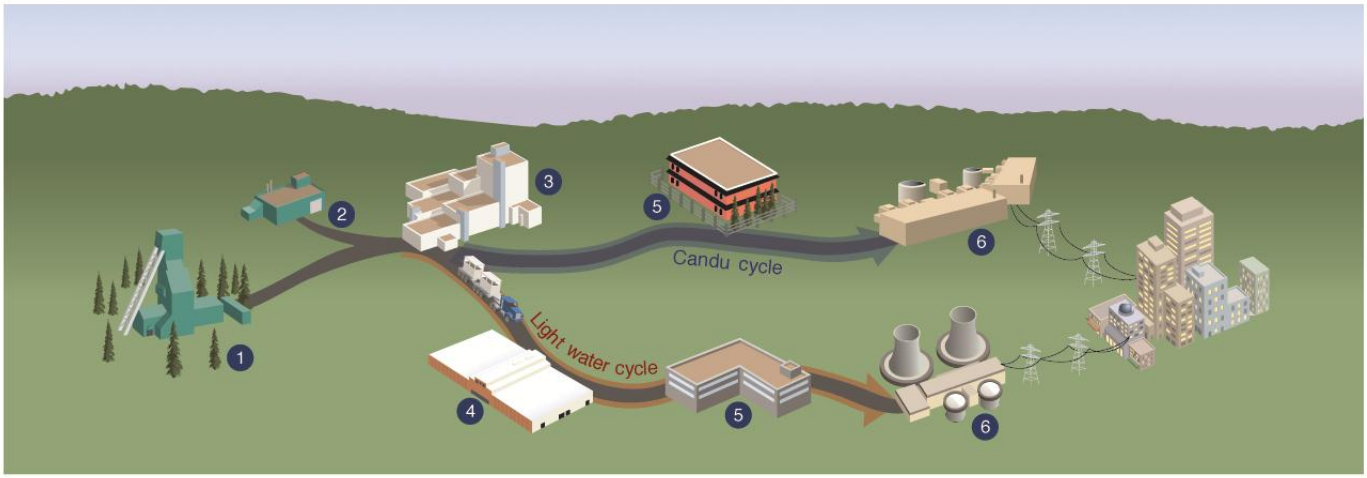
Electricity

We generate clean electricity through our 31.6% interest in the Bruce Power Limited Partnership (BPLP), which operates four nuclear reactors at the Bruce B generating station in southern Ontario.

Capacity
- 3,260 megawatts (MW) (100% basis) (about 18% of Ontario's electricity)

We also have agreements to manage the procurement of fuel and fuel services for BPLP, including:
- uranium concentrates
- conversion services
- fuel fabrication services

The nuclear fuel cycle



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

1 Mining

There are three common ways to mine uranium, depending on the depth of the orebody and the deposit's geological characteristics:

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

1 Milling

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

2 Refining

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

3 Conversion

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

4 Enrichment

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

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

5 Fuel manufacturing

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

6 Generation

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

Spent fuel management

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

Major developments

2009

February

- Our $470 million bank credit facility is increased to $500 million. We cancel the facility in the third quarter.
- We add a $100 million bank credit facility. It expires in February 2012.

March

- We issue 26,666,400 common shares for net proceeds of $441 million.

April

- We enter into an Agreement on New Terms with Kyrgyzaltyn JSC (Kyrgyzaltyn) and the Government of the Kyrgyz Republic that resolves all outstanding issues regarding the Kumtor Gold mine.

June

- We resume production of UF_6 at Port Hope.

September

- We issue $500 million of 5.67% unsecured debentures due in 2019.

October

- We seal the water inflow at the 420 metre level of Cigar Lake, and resume dewatering.

December

- We dispose of our entire interest in Centerra Gold Inc. (Centerra) in two steps:
  - sell 88,618,472 common shares of Centerra through a public offering for net proceeds of $871 million
  - transfer another 25,300,000 common shares of Centerra to Kyrgyzaltyn, under the April 2009 Agreement on New Terms.
- Inkai commissions its main processing plant and starts commissioning its first satellite plant.

2010

February

- Inkai files a notice of potential commercial discovery at block 3. It receives approval in principle to assess commercial viability until July 2015.
- We finish dewatering the Cigar Lake mine. By year end, we resume underground development in the south end of the mine.

June

- Inkai receives approval in principle to increase annual production from blocks 1 and 2 to 3.9 million pounds (100% basis).
- We agree to supply 23 million pounds of uranium concentrate to a Chinese utility under a long-term agreement to 2020.

November

- We agree to supply 29 million pounds of uranium concentrate to another Chinese utility under a long-term agreement to 2025.

2011

January

- We begin to refreeze the ground around shaft 2**.**

February

- We enter into two agreements with Talvivaara Mining Company Plc. to buy uranium produced as a by-product at the Sotkano nickel-zinc mine in Finland.
- We begin to refreeze the ground around shaft 2.

March

- We restart freezing the orebody from underground at Cigar Lake.
- We complete a mineral resource estimate for our Kintyre development project.

April

- Inkai receives approval to increase annual production from blocks 1 and 2 to 3.9 million pounds (100% basis).

May

- We resume the sinking of shaft 2 at Cigar Lake.

July

- We receive regulatory approval of our Cigar Lake mine plan and begin work on our Seru Bay project.

August

- We enter into a memorandum of agreement with our partner, JSC NAC KazAtomProm, to increase annual uranium production at Inkai from 3.9 million pounds to 5.2 million pounds (100% basis).

November

- We cancel our $100 million bank credit facility that expires on February 4, 2012.
- Our $500 million bank credit facility is increased to $1.25 billion. It expires in November 2016.

December

- We begin freezing the Cigar Lake orebody from the surface.
- Agreements are signed with the owners of the Cigar Lake project and the McClean Lake mill to process all Cigar Lake ore at McClean Lake**.**

How Cameco was formed

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

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

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

There are constraints and restrictions on ownership of Cameco shares set out in our company articles, and a related requirement to maintain offices in Saskatchewan. These are requirements of the *Eldorado Nuclear Limited Reorganization and Divestiture Act* (Canada), as amended, and *The Saskatchewan Mining Development Corporation Reorganization Act*, and are described on pages 122 and 123.

We have made the following amendments to our articles:

2002	• increased the maximum share ownership for individual non-residents to 15% from 5% • increased the limit on voting rights of non-residents to 25% from 20%
2003	• allowed the board to appoint new directors between shareholder meetings as permitted by the *Canada Business Corporations Act*, subject to certain limitations • eliminated the requirement for the chairman of the board to be ordinarily resident in the province of Saskatchewan

We have four main subsidiaries:

- Cameco Europe Ltd. (Cameco Europe), a Swiss company we have 100% ownership of through subsidiaries
- Our wholly owned subsidiaries Cameco Bruce Holdings Inc., a Canadian company, and Cameco Bruce Holdings II Inc., an Ontario company, which collectively own a 31.6% limited partnership interest in BPLP, an Ontario limited partnership
- Joint Venture Inkai Limited Liability Partnership (Inkai), a limited liability partnership in Kazakhstan, which we own a 60% interest in.

We do not have any other subsidiaries that are material, either individually or collectively.

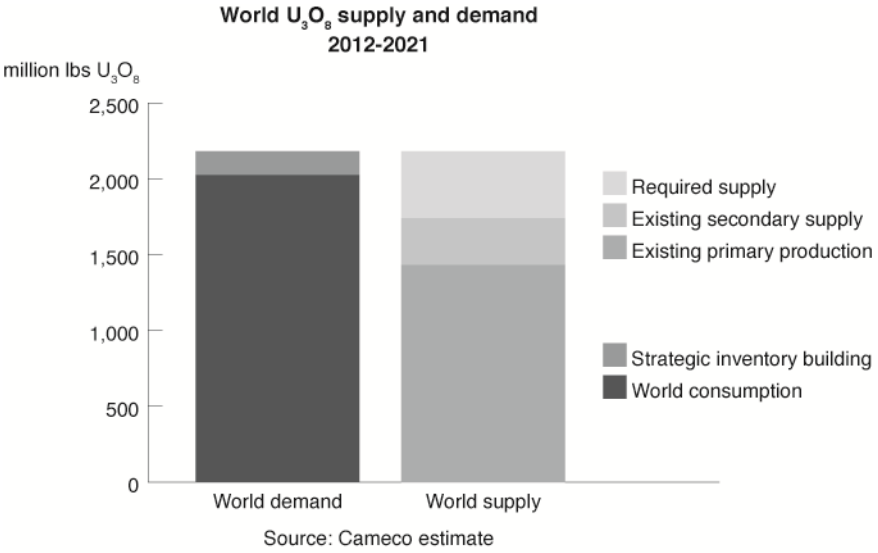
For more information

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

See our most recent management proxy circular for additional information, including how our directors and officers are compensated and any loans to them, principal holders of our securities, and securities authorized for issue under our equity compensation plans. We expect the circular for our May 2012 annual meeting of shareholders to be available in April 2012.

See our 2011 financial statements and 2011 MD&A for additional financial information.

Our markets



Demand

The nuclear energy industry addressed significant challenges in 2011 related to events at the Fukushima-Daiichi nuclear power plant in Japan. On March 11, an earthquake and tsunami in Japan caused cooling systems at the Fukushima-Daiichi nuclear power plant to fail, and radioactive materials were released. This reduced public confidence in nuclear power in some countries. The outlook for the industry remains uncertain for the near to medium term. In the long-term, however, we expect demand for uranium to grow.

The demand for U_3O_8 is directly linked to the level of electricity generated by nuclear power plants.

World annual uranium fuel consumption has increased from 75 million pounds U_3O_8 in 1980 to an estimated 165 million pounds in 2011. We expect global uranium consumption to increase to about 175 million pounds in 2012. By 2021, we expect world uranium consumption to be about 230 million pounds per year, reflecting an average annual growth rate of about 3%.

We expect world demand of approximately 2.2 billion pounds over the next 10 years, which includes both world consumption and strategic inventory building. By 2021, we expect world uranium demand to be about 250 million pounds per year, an average annual growth rate of about 3%.

The demand for UF_6 conversion services is directly linked to the level of electricity generated by light water moderated nuclear power plants.

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

We estimate world consumption of UF_6 and natural UO_2 conversion services was about 63 million kgU in 2011. We expect world consumption of UF_6 and natural UO_2 conversion services to increase by about 6% in 2012.

Supply

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

To meet global demand over the next 10 years, we expect:

- 65% of global uranium supply to come from existing primary production
- 15% will come from existing secondary supply sources
- the remaining 20% will come from new sources of supply.

Primary production

While the uranium production industry is international in scope, there are only a small number of companies operating in relatively few countries. In addition, there are barriers to entry and the lead time for new uranium production can be as long as 10 years or more, depending on the deposit type and location.

We estimate world mine production in 2011 was about 143 million pounds U_3O_8, up 2% from 140 million pounds in 2010:

- 93% of the estimated world production came from eight countries: Kazakhstan (36%), Canada (17%), Australia (11%), Niger (9%), Russia (6%), Namibia (6%), Uzbekistan (5%) and the US (3%)
- 61% of the estimated world production was marketed by five producers. We accounted for about 16% of that production (22 million pounds).

Secondary sources

Uranium consumption has outstripped uranium production every year since 1985.

A number of secondary sources have covered the shortfall, but most of these sources are finite and will not meet long-term needs:

- Uranium from dismantled Russian nuclear weapons is the largest current source of secondary supply. We except deliveries from this source to end in 2013, when the Russian HEU commercial agreement expires.
- The US government makes some of its inventories available to the market, although in much smaller quantities.
- Utilities, mostly in Europe and some in Japan and Russia, use reprocessed uranium and plutonium from used reactor fuel.
- Re-enriched depleted uranium tails are also generated using excess enrichment capacity.

Uranium from nuclear disarmament

In February 1993, the United States and Russia signed an agreement to manage the sale of highly enriched uranium (HEU) derived from dismantling Russian nuclear weapons (Russian HEU agreement). The agreement allows Russia to dilute 500 tonnes of HEU derived from dismantled weapons, and deliver it to the US as low enriched uranium suitable for use in nuclear power plants (disarmament LEU). Russia has implemented its plans to dilute the 500 tonnes, which is expected to be completed by 2013.

This is equivalent to a total of about 400 million pounds of natural uranium as U_3O_8 (disarmament uranium). About 354 million pounds of disarmament uranium had been delivered as of the end of 2011.

Russian HEU commercial agreement
In March 1999, we and other members of a consortium of western companies signed the Russian HEU commercial agreement with JSC Techsnabexport (Tenex), the commercial arm of the Russian Ministry for Atomic Energy. Under the agreement, the western companies were granted options to purchase a majority of the disarmament uranium. We exercised our options and have been receiving deliveries of disarmament uranium. We will receive the remaining 17 million pounds of disarmament uranium to be delivered to us under the agreement from 2012 to 2013.

Trade restraints and policies
The sale of disarmament uranium into the US market is regulated by the *USEC Privatization Act*, which imposes an annual quota on the sale of disarmament uranium. The 2012 quota is 20 million pounds, which is the maximum level and the same level as last year.

The US had suspension agreements with some countries that limited access to the US market, as part of uranium anti-dumping proceedings in the early 1990s. Only the suspension agreement with Russia is still in effect.

In February 2008, the US and Russia amended the agreement, allowing Russia to directly supply additional uranium

to US utilities in very low annual amounts from 2011 to 2013. Russia can also supply uranium for initial cores in new US reactors. Once the Russian HEU commercial agreement ends, the annual amount increases to 13 million pounds U_3O_8 equivalent from 2014 to 2020.

The US restrictions do not affect the sale of Russian uranium to other countries. About 75% of world uranium demand is from utilities in countries that are not affected by the US restrictions. Utilities in some countries, however, adopt policies that limit the amount of Russian uranium they will buy. The Euratom Supply Agency in Europe must approve all uranium related contracts for members of the EU, and limits the use of nuclear fuel supplies from any one source to maintain security of supply (historically this was an informal level of about 20%).

Uranium from US inventories
We estimate that the US Department of Energy has an inventory of approximately 144 million pounds U_3O_8 equivalent of surplus uranium. We expect this uranium will be available to the market over the next 25 years.

In March 2008, the US Department of Energy issued a policy statement and a general framework for managing this inventory, including the need to dispose of it without disrupting the commercial markets. In December of that year, it released the *Excess Uranium Inventory Management Plan,* which stated that it will dispose of the surplus annually, in amounts of 10% or less of annual US nuclear fuel requirements. It can exceed this limit in certain situations, however (during initial core loads for new reactors, for example). It indicated less than 3 million pounds U_3O_8 would enter the market in 2009, and that there would be a gradual rampup to 5 million pounds U_3O_8 by 2013. It also planned to make another 20 million pounds available for initial cores for new US reactors beginning in 2010. While the 20 million pounds are available, utilities may find other ways to fulfill core needs and not use this material.

In 2011, the US Department of Energy made a total of 4.2 million pounds U_3O_8 equivalent available to USEC Inc. (USEC) and another contractor, which was then made available in the spot market, in return for accelerated cleanup work at USEC's gaseous diffusion plant in Kentucky. USEC, an American company, supplies services to enrich uranium at this plant.

In 2011, the US Department of Energy authorized the transfer of up to 1.2 million pounds U_3O_8 equivalent per quarter (up to 4.2 million pounds annually) from its uranium inventories to fund accelerated clean-up activities at the Kentucky gaseous diffusion plant. Starting with the sale of about 0.9 million pounds U_3O_8 equivalent in the first quarter of 2012, the transfers are scheduled to run until the end of the third quarter of 2013. The industry expects the US Department of Energy to adhere to its limitations, with total annual transfers under all its programs limited to 10% of the domestic US market (about 5.2 million pounds U_3O_8 equivalent).

Conversion services

We control about 25% of world UF_6 conversion capacity and we are the only commercial supplier of natural UO_2.

Marketing

We sell uranium and fuel services (as uranium concentrates, UO_2, UF_6, conversion services or fuel fabrication) to nuclear utilities in Belgium, Canada, China, Finland, France, Germany, Japan, South Korea, Spain, Sweden, Taiwan and the US. We are the only commercial supplier of UO_2 to Candu reactors operated in Canada.

In June 2010, the government of Canada signed a civil nuclear co-operation agreement with India to export nuclear technology, equipment and uranium to support India's growing nuclear energy industry. Canada is the eighth nation to sign such an agreement with India since the Nuclear Suppliers Group lifted a 34-year ban on nuclear co-operation with India in 2008. Licensing arrangements for these exports still have to be negotiated by these two governments and discussions are ongoing.

We are in discussions with India to provide uranium for their growing reactor program.

In 2010, we signed two long-term agreements with Chinese utilities to supply more than 50 million pounds of uranium. In February 2012, the governments of Canada and China announced an agreement on the terms of a protocol that would facilitate the export of Canadian uranium to China. Work continues to finalize the text of the

protocol which will then need to be officially ratified by both countries, a process the Canadian government has indicated will take place within the next few months.

Once the protocol is ratified and the administrative arrangements are finalized, actual uranium trade can take place.

Uranium is not traded in meaningful quantities on a commodity exchange. Utilities buy the majority of their uranium and fuel services products under long-term contracts with suppliers, and meet the rest of their needs on the spot market.

Our sales commitments
In 2011, 37% of our U_3O_8 sales were to five customers.

We currently have commitments to supply more than 290 million pounds of U_3O_8 under long-term contracts with 54 customers worldwide. Our five largest customers account for 47% of these commitments, and 38% of our committed sales volume is attributed to purchasers in the Americas (US, Canada and Latin America), 36% in Asia and 26% in Europe. We are heavily committed under long-term uranium contracts through 2016, so we are being selective when considering new commitments.

Our purchase commitments
We participate in the uranium spot market from time to time, including making spot purchases to take advantage of opportunities to place the material into higher priced contracts. We determine the appropriate extent of our spot market activity based on the current spot price and various factors relating to our business. In addition to being a source of profit, this activity provides insight into the underlying market fundamentals and supports our sales activities. We have also bought uranium under long-term contracts, and may do so again in the future. At December 31, 2011, we had firm commitments to buy 23 million pounds of uranium equivalent from 2012 to 2014. Seventeen of the 23 million pounds will come from deliveries under the Russian HEU commercial agreement, which runs through 2013.

Our contracting strategy
Our extensive portfolio of long-term sales contracts – and the long-term, trusting relationships we have with our customers – are core strengths for us.

Because we deliver large volumes of uranium every year, our net earnings and operating cash flows are affected by changes in the uranium price. Our contracting strategy is to secure a solid base of earnings and cash flow by maintaining a balanced contract portfolio that maximizes our realized price. Market prices are influenced by the fundamentals of supply and demand, geopolitical events, disruptions in planned supply and other market factors. Contract terms usually reflect market conditions at the time the contract is accepted, with deliveries beginning several years in the future.

Our current uranium contracting strategy is to sign contracts with terms of 10 years or more that include mechanisms to protect us when market prices decline, and allow us to benefit when market prices go up. Our portfolio includes a mix of fixed-price and market-related contracts, which we target at a 40:60 ratio. Fixed-price contracts are typically based on the industry long-term price indicator at the time the contract is accepted, adjusted for inflation to the time of delivery. Market-related contracts may be based on either the spot price or the long-term price as quoted at the time of delivery, and often include floor prices adjusted for inflation and some include ceiling prices also adjusted for inflation.

This is a balanced approach that reduces the volatility of our future earnings and cash flow, and that we believe delivers the best value to shareholders over the long term. It is also consistent with the contracting strategy of our customers. This strategy has allowed us to add increasingly favourable contracts to our portfolio that will enable us to benefit from any increases in market prices in the future.

The majority of our contracts include a supply interruption clause that gives us the right to reduce, on a pro rata basis, defer or cancel deliveries if there is a shortfall in planned production or in deliveries under the Russian HEU commercial agreement. We have deferred a portion of the 2012 deliveries for five years.

Our older sales contracts allow the purchaser to adjust the amount of uranium to be delivered from year to year within

a specified range. Our newer contracts generally do not offer this.

Volumes and pricing
The Ux Consulting estimate for global spot market sales in 2011 is about 55 million pounds, 2% above the previous record high of 54 million pounds in 2009 and accounting for 33% of annual consumption (versus about 50 million pounds of U_3O_8 in 2010). Long-term contracting in 2011 was about 120 million pounds of U_3O_8, compared to 250 million pounds of U_3O_8 in 2010.

The industry average spot price (TradeTech and Ux Consulting) on December 31, 2011 was $51.88 (US) per pound U_3O_8, or 17% lower than the December 31, 2010 average of $62.25 (US).

The industry average long-term price (TradeTech and Ux Consulting) was $62 (US) per pound U_3O_8 on December 31, 2011, or 6% lower than the December 31, 2010 average of $66.00 (US).

Since the nuclear incident in Japan (Fukushima), spot and term prices have experienced consistent downward pressure. Industry demand projections being revised downward and potential inventory coming to the market are the major contributing factors, prompted by immediate and expected plant closures in countries such as Germany and Japan.

Fuel services
The majority of our fuel services contracts are at a fixed price per kgU, adjusted for inflation, and reflect the market at the time the contract is accepted.

For conversion services, we compete with three other primary commercial suppliers, in addition to the secondary supplies described above, to meet global demand.

We have a similar marketing strategy for UF_6 conversion services. We sell our conversion services to utilities in the Americas, Europe and Asia and primarily through long-term contracts. We currently have UF_6 conversion services commitments of more than 82 million kilograms of uranium under long-term contracts with 49 customers worldwide. Our five largest customers account for 37% of these commitments, and of our committed UF_6 conversion services volume, 57% is attributed to purchasers in the Americas, 24% in Asia and 19% in Europe.

Electricity business

BPLP leases and operates four Candu nuclear reactors that have the capacity to provide about 18% of Ontario's electricity.

It receives a reliable stream of revenue from financial contracts and sells electricity on the open spot market. Spot market prices are determined by bids from suppliers and buyers that reflect changes in supply and demand by the hour. In 2011, 54% of its output was sold under financial contracts.

BPLP also trades electricity and related contracts as part of its risk management activities to hedge output against exposure to low spot prices.

Demand for electricity in Ontario has been eroding. Wholesale demand has declined significantly since 2004. Ontario demand in 2011 was down by 0.5% or 0.7 TWh compared to 2010. While this decrease signals continued inertia in the economy, we believe it will take some time for demand to return to prior levels.

BPLP has an agreement with the Ontario Power Authority (OPA) that supports output from the B reactors with a floor price (currently $50.18/MWh) adjusted annually for inflation. The floor price mechanism and any related payments to BPLP for the output from each B reactor will expire on a date specified in the agreement. The expiry dates are December 31, 2015 for unit B6, December 31, 2016 for unit B5, December 31, 2017 for unit B7 and December 31, 2019 for unit B8. Revenue is recognized monthly, based on the positive difference between the floor price and the spot price. BPLP does not have to repay the revenue from the agreement with the OPA, if the floor price for the particular year exceeds the average spot price for that year. The agreement also provides for payment if the Independent Electricity System Operator reduces BPLP's generation because Ontario baseload generation is higher than required. The amount of the reduction is considered "deemed generation", and BPLP is paid either the spot price

or the floor price, whichever is higher.

Sales to BPLP and Bruce Power A Limited Partnership (BALP) are a substantial portion of our fuel manufacturing business and an important part of our UO_2 business.

Nuclear power stations have higher operational, maintenance, waste and decommissioning costs than other methods of generating electricity. They also require more initial capital for development because of the complexity of the technical processes that underlie nuclear power generation, and the additional design, security and safety precautions to protect the public from potential risks associated with nuclear operations.

The relatively low cost of nuclear fuel compared to fossil fuel offsets these costs. In general, BPLP's nuclear stations have a lower overall operating cost per megawatt-hour of electricity produced than facilities that use fossil fuels.

Operations and development projects

Uranium

Fuel services

Electricity

Uranium production

See page 65 of our 2011 MD&A for our annual forecast of uranium production from 2012 to 2016.

Cameco's share (million lbs U_3O_8)	**2009**	**2010**	**2011**
McArthur River/Key Lake	13.3	13.9	13.9
Rabbit Lake	3.8	3.8	3.8
Smith Ranch-Highland	1.8	1.8	1.4
Crow Butte	0.8	0.7	0.8
Inkai	1.1	2.6	2.5
Total	20.8	22.8	22.4

Uranium – operating properties

McArthur River/Key Lake

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

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

McArthur River is one of our three material uranium properties.

Location		Saskatchewan, Canada
Ownership		69.805% - McArthur River 83.33% - Key Lake
End product		uranium concentrates
ISO certification		ISO 14001 certified
Mine type		underground
Estimated mineral reserves (our share)		226.2 million pounds (proven and probable) average grade U_3O_8 – 16.89%
Estimated mineral resources (our share)		51.0 million pounds (measured and indicated) average grade U_3O_8 – 17.63% 60.3 million pounds (inferred) average grade U_3O_8 – 9.67%
Mining methods		currently: raiseboring pending regulatory approval: blasthole stoping under development: boxhole boring
Licensed capacity		mine and mill: 18.7 million pounds per year (can be exceeded – see *Production* below)
Total production	2000 to 2011 1983 to 2002	211 million pounds (McArthur River/Key Lake) (100% basis) 209.8 million pounds (Key Lake) (100% basis)
2011 production		13.9 million pounds (our share)
2012 forecast production		13.1 million pounds (our share)
Estimated mine life		2036 (based on current reserves)
Estimated decommissioning cost		$36.1 million - McArthur River $120.7 million - Key Lake

Business structure

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

- Cameco – 69.805%
- AREVA – 30.195%

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

- Cameco – 83⅓%
- AREVA – 16⅔%

History

1976	• Canadian Kelvin Resources Ltd. and Asamera Oil Corporation Ltd. form an exploration joint venture, which includes the lands that the McArthur River mine is situated on
1977	• Saskatchewan Mining Development Corporation (SMDC), one of our predecessor companies, acquires a 50% interest
1980	• McArthur River joint venture is formed • SMDC becomes the operator • Active surface exploration begins • Between 1980 and 1988 SMDC reduces its interest to 43.991%
1988	• Eldorado Resources Limited merges with SMDC to form Cameco • We become the operator • Deposit discovered by surface drilling
1988 – 1992	• Surface drilling reveals significant mineralization of potentially economic uranium grades, in a 1,700 metre zone at between 530 to 640 metres
1992	• We increase our interest to 53.991%
1993	• Underground exploration program receives government approval – program consists of shaft sinking (completed in 1994) and underground development and drilling
1995	• We increase our interest to 55.844%
1997-1998	• Federal authorities issue construction licences for McArthur River after reviewing the environmental impact statement, holding public hearings, and receiving approvals from the governments of Canada and Saskatchewan
1998	• We acquire all of the shares of Uranerz Exploration and Mining Ltd. (UEM), increasing our interest to 83.766% • We sell half of the shares of UEM to AREVA, reducing our interest to 69.805%, and increasing AREVA's to 30.195%
1999	• Federal authorities issue the operating licence and provincial authorities give operating approval, and mining begins in December
2003	• Production is temporarily suspended in April because of a water inflow • Mining resumes in July

2009	• UEM distributes equally to its shareholders:
	  • its 27.922% interest in the McArthur River joint venture, giving us a 69.805% direct interest, and AREVA a 30.195% direct interest
	  • its 33⅓% interest in the Key Lake joint venture, giving us an 83⅓% direct interest, and AREVA a 16⅔% direct interest.

Technical report

This project description is based on the project's technical report: *McArthur River Operation, Northern Saskatchewan, Canada,* dated February 16, 2009 (effective December 31, 2008) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of four Cameco *qualified persons* and one non-Cameco *qualified person*, within the meaning of NI 43-101. The following description has been prepared under the supervision of David Bronkhorst, P. Eng., Alain G. Mainville, P. Geo., Gregory M. Murdock, P. Eng., and Leslie D. Yesnik, P. Eng. These people are all *qualified persons* within the meaning of NI 43-101, but are not independent of us.

For information about uranium sales see pages 11 and 12, environmental matters see *Sustainable development* starting on page 82, and taxes see page 97.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see pages 96 and 97.

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

About the McArthur River property

Location

Near Toby Lake in northern Saskatchewan, 620 kilometres north of Saskatoon. The mine site is one kilometre long and half a kilometre wide.

Accessibility

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

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

Leases

Surface lease
We acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. The most recent agreement was signed in November 2010. It covers 1,425 hectares and has a term of 33 years.

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

Mineral lease
We have the right to mine the deposit under ML-5516, granted to us by the province of Saskatchewan. The lease covers 1,380 hectares and expires in March 2014. We have the right to renew the lease for further 10-year terms.

Mineral claims
A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 21 mineral claims, totalling 83,438 hectares, surrounding the deposit. We have title to all of these claims until 2018.

Climate

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

is below -20°C, and winter daily temperatures can reach below -40°C.

Setting

The deposit is in the southeastern portion of the Athabasca basin in northern Saskatchewan, within the southwest part of the Churchill structural province of the Canadian Shield. The topography and environment are typical of the taiga forested lands in the Athabasca basin.

Geology

The crystalline basement rocks underlying the deposit are members of the Aphebian-age Wollaston Domain, metasedimentary sequence, and consist of two distinct parts:

- a hanging wall pelitic sequence of cordierite and graphite bearing pelitic and psammopelitic gneiss with minor meta-arkose and calc-silicate gneisses
- a sequence consisting of quartzite and silicified meta-arkose and rare pelitic gneisses.

These are unconformably overlain by flat lying, unmetamorphosed sandstones and conglomerates of the Helikian Athabasca Group. These sediments consist of the A, B, C and D units of the Manitou Falls Formation, and a basal conglomerate containing pebbles and cobbles of quartzite. The sandstone is over 500 metres thick in the deposit area.

Mineralization

McArthur River's mineralization is structurally controlled by a northeast-southwest trending reverse fault (the P2 fault), which dips 40-65 degrees to the southeast. The fault has thrust a wedge of basement rock into the overlying sandstone. There is a vertical displacement of more than 80 metres at the northeast end of the fault, which decreases to 60 metres at the southwest end.

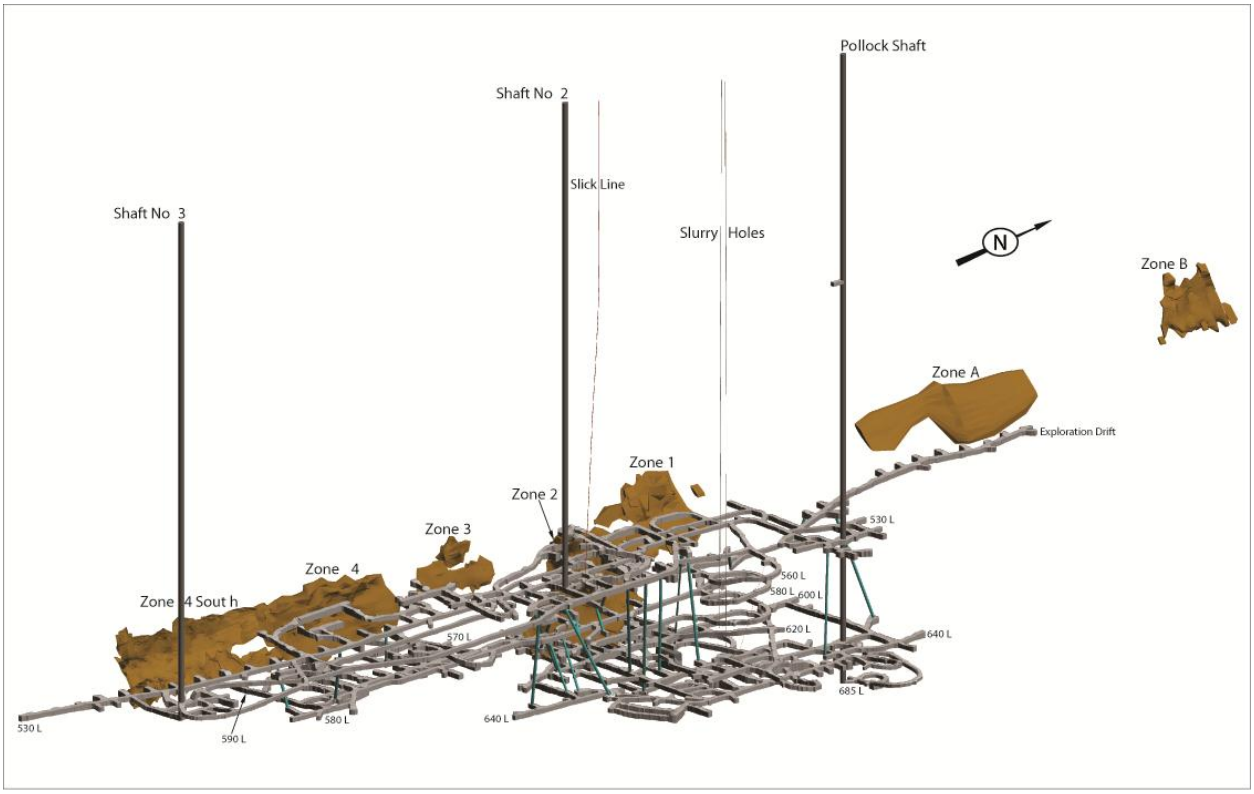
There are four zones of delineated mineral reserves (zones 1 to 4). Six zones contain mineral resources (zones A and B and parts of zones 1, 2, 3 and 4). The width of the ore varies. The main part of the orebodies, generally at the upper part of the wedge, averages 12.7 metres in width and attains a maximum width of 28 metres (zone 2). The height of the orebodies ranges from 50 metres to 120 metres.

Zone 2 is divided into four panels (panels 1, 2, 3 and 5). Panel 5 represents the upper portion of zone 2, overlying part of the other panels.

Five of the six mineralized zones are in sandstone and basement rock along the faulted edge of the basement wedge. Zone 2 sits in structurally disrupted basement rock in a unique area of the deposit, where a massive footwall quartzite unit lies close to the main fault zone.

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

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



About the McArthur River mine

McArthur River is a developed mineral property with sufficient surface rights to meet future mining operation needs for the current mineral reserves.

We began construction and development of the McArthur River mine in 1997 and completed it on schedule. Mining began in December 1999 and commercial production on November 1, 2000.

Our mine production comes from zone 2 panels 1, 2, 3 and 5 and the lower area of zone 4. We started mining the lower area of zone 4 at the end of 2010. In 2011, we began production from the second raisebore chamber in zone 2, panel 5.

Permits

We need three permits to operate the McArthur River mine:

- *Uranium Mine Facility Operating Licence* – renewed in 2008 and expires on October 31, 2013 (from the Canadian Nuclear Safety Commission (CNSC))
- *Approval to Operate Pollutant Control Facilities* – renewed in 2009 and expires on October 31, 2014 (from the Saskatchewan Ministry of Environment)
- *Permit to Operate Waterworks* – renewed in 2011 and expires on April 30, 2012 (from the Saskatchewan Ministry of Environment).

Infrastructure

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

- an underground mine with three shafts: one to move workers, material and waste rock and for fresh air ventilation, one for mine exhaust air ventilation, and one for fresh air ventilation and an emergency exit
- waste rock stockpiles
- a minewater treatment plant and ponds
- a freshwater pump house
- a powerhouse
- electrical substations
- standby electrical generators
- maintenance and warehousing facilities
- freeze plant
- a concrete batch plant
- an administration building
- a workforce residence
- an ore loadout building.

Water, power and heat

Toby Lake, which is nearby and easy to access, has enough water to satisfy all water requirements. The site is connected to the provincial power grid, and it has standby generators in case there is an interruption in grid power.

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

Employees

Employees are recruited first from communities in the area and then from major Saskatchewan population centres, like Saskatoon.

Mining method

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

Ground freezing
The sandstone that overlays the deposit and basement rocks is water-bearing, with large volumes of water under significant pressure. We use ground freezing to form an impermeable wall around the area being mined. This prevents the water in the sandstone from entering the mine, and helps stabilize weak rock formations.

In 2009, we developed an innovative, cathedral-shaped freezewall around zone 2, panel 5, allowing us to develop tunnels above and below the orebody. We expect this innovation will allow us to continue using raisebore mining as the main mining method at McArthur River and improve production efficiencies as we transition to other areas of the mine.

Raisebore mining
Raisebore mining is an innovative non-entry approach that we adapted to meet the unique challenges at McArthur River. It involves:

- drilling a series of overlapping holes through the ore zone from a raisebore chamber in waste rock above the ore
- collecting the broken ore at the bottom of the raises using line-of-sight remote-controlled scoop trams, and transporting it to a grinding circuit
- filling each raisebore hole with concrete once mining is complete
- removing the equipment and filling the entire chamber with concrete when all the rows of raises in a chamber are complete
- starting the process again with the next raisebore chamber.

We have successfully used the raisebore mining method to extract about 210 million pounds (100% basis) since we began mining in 1999.

We may also use boxhole boring and blasthole stoping in other areas of the mine.

Blasthole stoping

Blasthole stoping involves establishing drill access above the ore and extraction access below the ore. The area between the upper and lower access levels (the stope) is then drilled off and blasted. The broken rock and ore are collected on the lower level and removed by line-of-sight, remote-controlled scoop trams, then transported to a grinding circuit. Once a stope is mined out, it is backfilled with concrete to maintain ground stability and allow the next stope in sequence to be mined. This mining method has been used extensively in the mining industry, including for mining uranium.

Blasthole stoping is being evaluated for the recovery of small isolated, lower grade ore zones away from the freezewalls and where raisebore or boxhole boring is uneconomic or impractical. We mined our first blasthole stope in the fourth quarter of 2011, in lower zone 4, with good productivity.

We plan to test the method again in 2012.

Boxhole boring

Given our success with the cathedral-shaped freezewall around zone 2, panel 5, the use of boxhole boring in our mine plan has been significantly narrowed in scope. We expect to be able to continue using raisebore mining as our main mining method for McArthur River.

Boxhole boring is similar to the raisebore method, but the drilling machine is located below the orebody, so development is not required above the orebody. This method is currently being used at only a few mines around the world, but has not been used for uranium mining.

Boxhole boring poses some technical challenges. We have completed four test raises in waste, and plan to complete four test raises in ore in 2012. However, we expect it will only be used as a secondary method, in areas where we determine raiseboring is not feasible. Boxhole boring may not be as productive as the raisebore method, but we will be able to determine this more accurately once we have fully developed and tested the method at McArthur River.

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, which ranges in grade from 15 to 30% uranium, is pumped into transport truck containers and shipped to Key Lake mill on an 80 kilometre all-weather road.

Contaminated water from this process, including water from underground operations, is treated on the surface. The extra treated water we do not need is released into the environment.

Tailings

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

Waste

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

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

Water inflows

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

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

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 we begin work on any new zone. We believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum sustained inflow.

Production

- *Forecast***:** 18.7 million pounds of U_3O_8 per year until 2020 (our share will be 13.1 million pounds). After that, it declines until 2036.
- *2011***:** 20 million pounds of U_3O_8 was produced by milling McArthur River ore at Key Lake (our share was 13.9 million pounds). Average mill metallurgical recovery was 98.7%.

In 2010, the CNSC approved an amendment to our operating licence for McArthur River, giving us flexibility in the annual licensed production limit, similar to that received at Key Lake in 2009. The McArthur River mine can produce up to 21 million pounds (100% basis) per year as long as average annual production does not exceed 18.7 million pounds. If production is lower than 18.7 million pounds in any year, we can produce more in future years until we recover the shortfall. We still have the opportunity to recover about 3.5 million pounds (100% basis) in past production shortfalls**.**

Recent activity

In 2011, we continued mining the lower mining area of zone 4. We removed abandoned freeze pipes from the new production chamber and began production from the second raisebore chamber in zone 2, panel 5. We have completed production from the first chamber and are developing the third through draft and fill.

In 2012, we will continue the drilling to install the freezewall required to bring the upper mining area of zone 4 into production. We expect to start freezing upper zone 4 in 2013 and begin production from this area in 2014.

We expect to use raisebore mining in this area, applying the ground freezing experience we gained in zone 2, panel 5. This should significantly improve production efficiencies compared to boxhole boring.

In addition to the exploration work discussed below, we advanced feasibility work on the *McArthur River extension project* this year. This is a multi-year project to safely expand the underground mine and develop new mining areas. Our plan is to:

- increase average annual production at the mine from 18.7 million pounds (100% basis) to 22 million pounds (100% basis)
- construct the infrastructure necessary to support production at this level
- further delineate mineral resources to the north and south of the current mining operations.

An environmental assessment is required for the potential increase in production. Other work on this project will be approved through regular licensing activities.

Key Lake mill

Location

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

Permits

We need three permits to operate the Key Lake mill:

- *Uranium Mine Facility Operating Licence* – renewed in 2008 and expires on October 31, 2013 (from the CNSC)
- *Approval to Operate Pollutant Control Facilities* – renewed in 2009 and expires on November 30, 2014 (from the Saskatchewan Ministry of Environment)
- *Permit to Operate Waterworks* – renewed in 2009 and expires on November 30, 2014 (from the Saskatchewan Ministry of Environment)

In June 2009, the CNSC amended our operating licence for Key Lake, giving us flexibility in annual licensed production. The Key Lake mill can produce up to 20.4 million pounds U_3O_8 per year as long as average annual production does not exceed 18.7 million pounds. If production is lower than 18.7 million pounds in any year, we can produce more in future years until we recover the shortfall. We still have the opportunity to recover about 2.5 million pounds (100% basis) in past production shortfalls. This also gives us the flexibility to avoid having to restart the mill in cold winter temperatures.

After the mill is revitalized, annual production will depend mainly on mine production. We are continuing to plan for annual production of 18.7 million pounds (100% basis) for the next few years.

Supply

Our share of McArthur River ore is milled at Key Lake. We do not have a formal toll milling agreement with the Key Lake joint venture.

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

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

With the UEM distribution in 2009 (see *History* on page 17 for more information), we made the following changes to the agreement:

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

The agreement was amended again in 2011 and now requires:

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

Process

The Key Lake mill uses a seven-step process:

- blend McArthur River ore with low grade mineralized material to lower the grade
- dissolve the uranium using a leaching circuit
- clarify the uranium in solution using a counter current decantation circuit
- concentrate it using a solvent extraction circuit
- precipitate it with ammonia
- thicken, dewater and dry it
- package it as 98% U_3O_8 (yellowcake).

Waste rock

There are five large rock stockpiles at the Key Lake site:

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

Treatment of effluent

We modified Key Lake's effluent treatment process to reduce concentrations of molybdenum and selenium discharged into the environment, as required by our operating licence. Release of both metals to the environment is now controlled at reduced concentrations.

Tailings capacity

There are two tailings management facilities at the Key Lake site:

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

At current production rates, the licensed capacity of the Deilmann TMF is about six years, assuming only minor losses in storage capacity because of sloughing from the pitwalls. Significant sloughing may constrain McArthur River production.

In the past, sloughing of material from the pitwalls has reduced tailings capacity. Studies show that stabilizing and reducing water levels in the pit enhances the stability of the pitwalls, which reduces the risk of pitwall sloughing. We have doubled our dewatering treatment capacity, allowing us to stabilize the water level in the pit. This water level has been reduced gradually over the past three and a half years.

In 2009, regulators approved our plan for the long-term stabilization of the Deilmann TMF pitwalls. We are implementing the plan, and expect it will take approximately three years to complete the work.

In 2011, we:

- completed the detailed design for the stabilization of the Deilmann TMF pitwalls
- relocated the infrastructure necessary to allow us to flatten the slope of the pitwalls
- continued our work on the environmental assessment for the *Key Lake extension project*.

In 2012, we expect to:

- begin to flatten the slope of the Deilmann TMF pitwalls
- advance the environmental assessment for the *Key Lake extension project.* We plan to submit the draft environmental impact statement to the regulators by the end of the second quarter. Comments on the draft are expected before year end.

We have assessed options for long-term storage of tailings at Key Lake. We are proceeding with the environmental assessment to support an application for regulatory approval to deposit tailings in the Deilmann TMF to a much higher level. Once we receive approval, this would provide us with enough tailings capacity to potentially mill a

volume equal to all the known mineral reserves and resources from the McArthur River operation and additional capacity to toll mill ore from other regional deposits.

Mill revitalization

The Key Lake mill began operating in 1983. We have a revitalization plan to maintain and increase its annual uranium production capability to up to 25 million pounds. Our initial work is in three areas:

- operational upgrades – upgrading circuits with new technology to simplify operations, increasing annual production capacity and improving environmental performance. As part of this plan, we replaced the acid, steam and oxygen plants. At the end of 2011, construction of all three plants was complete. The steam plant was commissioned at year end and the oxygen plant was commissioned in early 2012. We have started commissioning the acid plant. Also, foundations are being installed so a new electrical substation and calciner can be installed.
- treatment of effluent – completed
- increase in tailings capacity – see *Tailings capacity*, above.

We may make other changes to the mill, depending on the results of studies.

Decommissioning and financial assurances

In 2003, we prepared a *preliminary decommissioning plan* for both McArthur River and Key Lake, which were approved by the CNSC and the Saskatchewan Ministry of the Environment. In 2008, when we renewed our CNSC licence, we revised the accompanying *preliminary decommissioning cost estimates*. These documents include our estimated cost for implementing the decommissioning plan and addressing known environmental liabilities.

We, along with our joint venture partner, posted letters of credit as financial assurances with the Saskatchewan Ministry of the Environment to cover the amounts in the 2008 *preliminary decommissioning cost estimates* ($36.1 million for McArthur River and $120.7 million for Key Lake).

Exploration, drilling and estimates

The original McArthur River resource estimates were derived from surface diamond drilling from 1980 to 1992. In 1988 and 1989, this drilling first revealed significant uranium mineralization. By 1992, we had delineated the mineralization over 1,700 metres at between 530 to 640 metres. Data included assay results from 42 drillholes. The very high grade found in the drillholes justified the development of an underground exploration project in 1993.

In total, exploration drilling of the McArthur River deposit to date consists of over 1,000 drillholes and 185,000 metres. Drilling has been carried out from both surface and underground in order to delineate and locate mineralization. Surface exploration drilling is initially used in areas where underground access is not available and is used to guide the underground exploration programs. Drilling to date has identified mineral reserves and resources over a strike length of 1.8 kilometres and in six main zones (zones 1 to 4 and zones A and B).

Surface drilling

We have carried out surface drilling since 2004, to test the extension of mineralization identified from the historical surface drillholes, to new targets along the strike, and to evaluate the P2 trend north and south of the mine. Surface drilling has been over a strike length of two kilometres, generally at between 500 metres to 640 metres below the surface.

As of December 31, 2011, we had drilled 145 surface drillholes (both conventional and directional drilling) for a total of over 85,000 metres along the P2 trend. This includes 13 drillholes totaling approximately 6,800 metres, completed during 2009 to confirm and further delineate the zone B resource.

We have completed preliminary drill tests of the P2 trend at 200 metre intervals over 11.2 kilometres (4.3 kilometres north and 6.9 kilometres south of the McArthur River mine site) of the total 14.8 kilometres strike length of the P2 trend. A total of $5.0 million (our share $3.49 million) has been budgeted in 2012 for diamond drilling to follow up on any anomalies in 2011 and continue systematic testing of the P2 trend south of the mine.

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

We have drilled more than 850 underground drillholes since 1993, over 78,000 metres, to get detailed information along 750 metres of the surface delineation, and used this data to estimate the mineral reserves and resources in four mineralized zones (zones 1 to 4). The drilling was completed from the 530 and 640 metre levels. Data from hundreds of freezeholes and raisebore pilot holes support the estimate. Where there were no underground drillholes (the southern part of the deposit, and in zones A and B in the northern part of the deposit), we used surface exploration drillholes to estimate mineral resources.

In addition to the exploration drilling, geological data is also collected from the underground probe and grout and geotechnical programs. To date, we have drilled over 900 holes along more than 50,000 metres under these programs.

Recent activity
We initiated a multi-year project, the *McArthur River extension*, in 2010, to advance the underground exploration drifts on the 530 metre level to the north and to the south of the current mining operations. We began tunneling the north exploration drift in 2007, and the south exploration drift in 2010.

In 2011, we advanced the exploration drifts to zones A and B, north of current mining operations, and were successful in upgrading the majority of the zone B inferred mineral resources to the indicated category based on surface drilling. This area continues to show promise.

In 2012, we plan to continue advancing the underground exploration drift to the south of the current mining areas. We also plan to test, from surface, along the entire length of the mineralized zone to identify additional mineral resources.

Sampling and analysis

Surface samples
- GPS or mine site surveying instruments are used in the field to verify the location of surface drillholes.
- Holes are generally drilled every 12 to 25 metres, on sections that are 50 to 200 metres apart. Drilled depths average 670 metres.
- Vertical holes generally intersect mineralization at angles of 25 to 45 degrees, resulting in true widths being 40 to 70% of the drilled width. Angled holes usually intercept it perpendicularly, giving true width.
- All holes are radiometrically probed.
- A geologist examines the surface drillhole core in the field, determines its overall characteristics, including mineralization, logs the information, and takes samples that have noteworthy alteration, structures and radiometric anomalies.
- Basement sampling procedures depend on the length of the interval sampled, and attempts are made to avoid having samples cross lithological boundaries.
- All core with radioactivity greater than a set threshold is split and sampled for assay.
- We measure the uranium grade by assaying core. Core recovery is generally considered excellent with some local exceptions. The quality and representativeness of the surface drillhole samples is adequate for estimating mineral resources and mine planning, but we often validate surface drillhole results against underground drilling results in the same vicinity.

Underground samples
- Holes are drilled in stations 30 metres apart. Each station is drilled with three fans of holes, covering 10 metres across the deposit.
- Uranium grade is calculated from the adjusted radiometric probe readings. Radiometric probing is at 0.1 metre spacing in radioactive zones and 0.5 metre spacing in unmineralized zones. The drillhole fans give the gamma probes representative access across the entire deposit.
- For a small portion of the assay data we obtain, which we use to estimate mineral resources, we assay core to determine the U_3O_8 content past the probe limit of a hole, or to provide correlation samples to compare against a

probed interval. In these cases, we log the core, photograph it, and then sample it for uranium analysis. We sample the entire interval instead of splitting the core. This provides very high-quality samples in these areas.
- Core recovery in these areas can be excellent to poor.
- The quality and representativeness of the underground drillhole samples is adequate for estimating mineral resources and mine planning.

Analysis

We record the following for each sample:

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

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

SRC personnel:

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

Quality control

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

We use several quality control measures and data verification procedures:

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

Since 2000, we have regularly compared information collected from production activities, such as freezeholes, raisebore pilot holes, radiometric scanning of scoop tram buckets and mill feed sampling, to the drillhole data.

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

- checking the calibration of probes before using them
- visually monitoring the radiometric measurements
- periodically duplicating probe runs.

We also compare the probing results with the core measurements, and have an experienced geologist at the mine site or in Saskatoon visually inspect the radiometric profile of each hole. Reconciling the model with mine production is a very good indicator that estimated grades in the block model accurately reflect the mined grades.

Sample security

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

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

Accuracy

We are satisfied with the quality of data obtained from surface exploration and underground drilling at McArthur River and consider it valid for estimating mineral resources and mineral reserves. This is supported by the fact that for the last seven years, actual annual uranium production has been within 5% of our estimates.

Mineral reserve and resource estimates

Please see page 73 for our mineral reserve and resource estimates for McArthur River.

Uranium – operating properties

Rabbit Lake

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

Location	Saskatchewan, Canada
Ownership	100%
End product	uranium concentrates
ISO certification	ISO 14001 certified
Mine type	underground
Estimated mineral reserves	24.0 million pounds (proven and probable) average grade U_3O_8 – 0.73%
Estimated mineral resources	4.3 million pounds (indicated) average grade U_3O_8 – 0.53% 10.4 million pounds (inferred) average grade U_3O_8 – 1.42%
Mining method	vertical blasthole stoping
Licensed capacity	mill: maximum 16.9 million pounds per year; currently 11 million
Total production 1975 to 2011	186.3 million pounds
2011 production	3.8 million pounds
2012 forecast production	3.7 million pounds
Estimated mine life	2017 (based on current reserves)
Estimated decommissioning cost	$105.2 million

Business structure

We own 100% of Rabbit Lake.

Permits

We need three permits to operate the Rabbit Lake mining and milling complex:

- *Uranium Mine Operating Licence* from the CNSC
- *Approval to Operate Pollutant Control Facilities* from the Saskatchewan Ministry of the Environment
- *Permit to Operate Waterworks* from the Saskatchewan Ministry of the Environment.

These permits expire on October 31, 2013.

Production

2011 production was 3.8 million pounds U_3O_8, the same as it was in 2010.

Operations

During our scheduled mill maintenance shutdown in the third quarter of 2011, we completed the second phase of upgrades at the acid plant, successfully replacing the acid plant final towers.

Exploration

In 2010, we added mineral reserves, extending the estimated mine life by two years to 2017.

In 2011, we received regulatory approval to begin exploration–related development and drilling on the Powell Zone, and completed a portion of the development work. We plan to complete the development work in 2012 and carry out drilling to further evaluate this zone.

We have extended our underground drilling reserve replacement program into 2012. We plan to test and evaluate areas east and northeast of the mine where we have had good results, and to the north and south. The drilling will largely be from surface.

Tailings

We expect the mill to have the capacity to handle tailings from milling ore from Rabbit Lake until approximately mid-2016 (based on expected ore grades and milling rates).

We are planning to expand the existing tailings management facility by mid-2016 to increase the tailings capacity so that it can support the extension of Rabbit Lake's mine life, and provide additional tailings capacity to process ore from other potential sources. We need regulatory approval to proceed with any increase in capacity and will pay the resulting capital costs. The increase in tailings capacity will require an environmental assessment.

Site reclamation

We are proceeding with our multi-year, site wide reclamation plan. We spent over $10 million in 2011 to reclaim facilities that are no longer in use, and plan to spend over $2 million in 2012.

Mill renewal

We have been working on upgrades to the Rabbit Lake mill and associated facilities since 2006:

- 2006 – reduced mill effluent concentrations of uranium
- 2008 – replaced the mill-distributed control system and improved the mill's secondary containment
- 2009 – reduced mill effluent concentrations of molybdenum and selenium
- 2010 – replaced the converter and heat recovery equipment in the acid plant
- 2011 – replaced the three acid plant towers in the acid plant and completed ongoing upgrades to mill processing equipment and tanks.

Uranium – operating properties

Smith Ranch-Highland

We operate Smith Ranch and Highland as a combined operation. Each has its own processing facility, but the Smith Ranch central plant processes all the uranium. The Highland plant is currently idle.

Together, they form the largest uranium production facility in the United States.

Location	Wyoming, US
Ownership	100%
End product	uranium concentrates
ISO certification	ISO 14001 certified
Estimated mineral reserves	6.6 million pounds (proven and probable) average grade U_3O_8 – 0.09%
Estimated mineral resources	23.7 million pounds (measured and indicated) average grade U_3O_8 – 0.06% 6.6 million pounds (inferred) average grade U_3O_8 – 0.05%
Mining method	in situ recovery (ISR)
Licensed capacity	wellfields: 2 million pounds per year processing plants: 5 million pounds per year including Highland mill
Total production 2002 to 2011	15 million pounds
2011 production	1.4 million pounds
2012 forecast production	1.7 million pounds
Estimated decommissioning cost	$168 million (US)

Business structure

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

See our 2011 MD&A for more information.

Uranium – operating properties

Crow Butte

Crow Butte was discovered in 1980 and began production in 1991. It is the first uranium mine in Nebraska, and is a significant contributor to the economy of northwest Nebraska.

Location	Nebraska, US
Ownership	100%
End product	uranium concentrates
ISO certification	ISO 14001 certified
Estimated mineral reserves	3.7 million pounds (proven) average grade U_3O_8 – 0.13%
Estimated mineral resources	11.9 million pounds (indicated) average grade U_3O_8 – 0.21%
	6.0 million pounds (inferred) average grade U_3O_8 – 0.12%
Mining method	in situ recovery (ISR)
Licensed capacity (processing plant and wellfields)	1 million pounds per year
Total production 2002 to 2011	7.6 million pounds
2011 production	0.8 million pounds
2012 forecast production	0.7 million pounds
Estimated decommissioning cost	$35.6 million (US)

Business structure

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

See our 2011 MD&A for more information.

Uranium – operating properties

Inkai

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

Inkai is one of our three material uranium properties.

Location	South Kazakhstan
Ownership	60%
End product	uranium concentrates
ISO certification	BSI OHSAS 18001 ISO 14001 certified
Estimated mineral reserves (our share)	59.7 million pounds (proven and probable) average grade U_3O_8 – 0.07%
Estimated mineral resources (our share)	28.8 million pounds (indicated) average grade U_3O_8 – 0.08% 153 million pounds (inferred) average grade U_3O_8 – 0.05%
Mining method	in situ recovery (ISR)
Licensed capacity (wellfields)	approved: 3.9 million pounds per year (our share 2.3 million pounds per year) application: 5.2 million pounds per year (our share 2.9 million pounds per year)[1]
Total production 2008 to 2011	6.5 million pounds (our share)
2011 production	2.5 million pounds (our share)
2012 forecast production	2.5 million pounds (our share) [1]
Estimated mine life	2030 (based on current reserves)
Estimated decommissioning cost	$11 million (US)

[1] For more information on the application to increase the licensed capacity at Inkai and our share of production, see *Production increases for 2011, 2012 and 2013*.

Business structure

Inkai is a Kazakhstan limited liability partnership between two companies:

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

History

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

Technical report

This project description is based on the project's technical report: *Inkai Operation, South Kazakhstan Oblast, Republic of Kazakhstan,* dated March 31, 2010 (effective December 31, 2009) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of two Cameco *qualified persons* within the meaning of NI 43-101. The following description has been prepared under the supervision of David Neuburger, P. Eng., Alain G. Mainville, P. Geo and Lawrence Reimann, P. Eng. They are all *qualified persons* within the meaning of NI 43-101, but are not independent of us.

For information about environmental matters, see *Sustainable development* starting on page 82.

For a description of royalties payable to the government of Kazakhstan on the sale of uranium extracted from orebodies within the country and taxes, see pages 97 and 98.

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

About the Inkai property

Location

The Inkai mine is located in the Suzak District of South Kazakhstan Oblast, Kazakhstan near the town of Taikonur, 370 kilometres north of the city of Shymkent and 125 kilometres east of the city of Kyzl-Orda.

Accessibility

The road to Taikonur is the primary road for transporting people, supplies and uranium product to and from the mine. It is a gravel road and crosses the Karatau Mountains. Railroad transportation is available from Almaty to Shymkent, then northwest to Shieli, Kyzl-Orda and beyond. A rail line also runs from the town of Dzhambul to a Kazatomprom facility to the south of Taikonur.

Licences

Inkai holds the rights to three contiguous licence blocks, blocks 1, 2 and 3, based on the licences it has received and its *resource use contract* with the Kazakhstan government. Inkai has to meet certain obligations to maintain these rights. See pages 40 and 41 for more information.

Setting

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

The area also has strong and almost uninterrupted winds that travel from 3.8 to 4.6 metres per second. The prevailing winds are northeast. Dust storms are common. The major water systems in the area include the Shu, Sarysu and Boktykaryn rivers.

Geology

The deposit is sub-divided into two regions: the Sandy-brackish intercontinental deltas of the Shu and Sarysu rivers, and the Betpak Dala plateau.

The geology of south-central Kazakhstan is comprised of a large relatively flat basin of Cretaceous to Neogene age continental clastic sedimentary rocks. The Cretaceous-Cainozoic Chu-Sarysu basin extends for more than 1,000 kilometres from the foothills of the Tien Shan Mountains on the south and southeast sides, and merges into the flats of the Aral Sea depression to the northwest. The basin is up to 250 kilometres wide, bordered by the Greater Karatau

Mountains on the southwest and the Chu-Ili uplift and Central Kazakhstan uplands on the northeast. It is composed of gently dipping to nearly flat lying fluvial-derived unconsolidated sediments composed of inter-bedded sand, silt, and local clay horizons.

The Cretaceous-Cenozoic sediments host several stacked and relatively continuous, sinuous “roll-fronts”, or oxidation-reduction (redox) fronts hosted in the more porous and permeable sand and silt units. There are several uranium deposits and active ISR uranium mines at these regional oxidation roll-fronts, developed along a regional system of superimposed mineralization fronts.

The Inkai deposit is hosted within the Inkuduk and Mynkuduk formations, which are made up of feldspathic sandstones or sub-arkoses, typically containing 50 to 60% quartz, 10 to 15% feldspar, and 5 to 10% clay. The redox boundary can be readily recognised in core by a distinct colour change from gray on the reduced side to yellowish stains on the oxidized side, stemming from the oxidation of pyrite to limonite. In cross-section, the redox boundary is often “C” shaped forming the classic “roll-front”. The sands have a high horizontal permeability.

Mineralization

Seven mineralized zones have been identified on blocks 1 and 2, including three zones in the Mynkuduk horizon and four zones in the Inkuduk horizon.

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

Most of the mineralization in block 1 is in the Mynkuduk horizon, of Turonian age, which unconformably overlays Permian argillites. Made up of fine to medium sands with occasional layers of clay or silt, this horizon is at a depth of 500 metres. The surface projection of the Mynkuduk horizon has an overall length of about 31 kilometres at an average width of 160 metres. The lower part of the Inkuduk horizon, which sits above the Mynkuduk horizon, is also locally mineralized.

In block 2, mineralization is mainly in the Middle and Lower Inkuduk horizons, between 350 and 420 metres below the surface. For the Inkuduk horizons, the overall length is about 66 kilometres at an average width of 160 metres.

Block 3 update

Exploration work on the northern flank (block 3) of the Inkai deposit has identified extensive mineralization hosted by several horizons in the lower and middle parts of the Upper Cretaceous stratigraphic level and traced along 25 kilometres from block 2 of the Inkai deposit in the southwest through to the Mynkuduk deposit in the northeast. This discovery requires further assessment of its commercial viability. In February 2010, Inkai filed a notice of the discovery with regulators.

In April 2011, Inkai received government approval to amend the block 3 licence to provide for a five-year appraisal period to carry out delineation drilling, uranium resource estimation, construction and operation of a test leach facility and to complete a feasibility study. In June 2011, Inkai paid a $2.7 million (US) commercial discovery bonus to the state. In 2011, Inkai continued delineation drilling, began infrastructure development and completed engineering for a test leach facility for the block 3 assessment program. Inkai requires regulatory approval of the detailed block 3 delineation and teach leach work programs.

In 2012, Inkai expects to continue delineation drilling and advancing development of the test leach facility.

Profits from future block 3 production are to be shared on a 50:50 basis with our partner, instead of based on our ownership interests.

About the Inkai operation

Inkai is a developed mineral property with sufficient surface rights to meet future mining operation needs for the current mineral reserves.

Licences

We need a number of licences to operate the Inkai mine:

- *Licence Series AY 1370D*, April 20, 1999, expires in 2024
  For uranium extraction in block 1 (16.6 square kilometres)
- *Licence Series AY 1371D*, April 20, 1999
  For exploration and uranium extraction in block 2 (230 square kilometres) (expires in 2030) and for exploration in block 3 (240 square kilometres) (expires in 2015)

Other material licences

- *Licence for performance of works connected with stages of life cycle of objects of use of atomic energy* (issued January 18, 2010 by the Kazakhstan Ministry of Energy and Mineral Resources (MEMR))
- *Licence for operation of mining production and mineral raw material processing* (issued December 23, 2009 by the MEMR)
- *Licence for transportation of radioactive substances within the territory of the Republic of Kazakhstan* (issued November 18, 2008 by the MEMR)
- *Licence for dealing with radioactive substances* (issued August 29, 2008 by the MEMR)

These licences are all currently in force and have an indefinite term. Inkai's material environmental permits are described on page 41.

Infrastructure

Block 1

- main processing plant, which includes a product recovery drying and packaging facility
- administrative office, shops, garage, laboratory, emergency response building, low-level radioactive waste and domestic landfills, engineering and construction offices
- a camp for 400 employees
- catering and leisure facilities

Block 2

- satellite processing plant that produces uranium loaded ion exchange resin
- office, small shops, and a food services facility

We are planning an expansion of the satellite processing plant.

Block 3

We are engineering a test leach facility.

Water, power and heat

Groundwater wells provide sufficient water for all planned industrial activities. Shallow wells on site have potable water for use at the camp. The site is connected to the Kazakh power grid. Operations continue throughout the year despite cold winters (lows of -35°C) and hot summers (highs of +40°C).

Employees

Taikonur has a population of about 450 people who are mainly employed in uranium development and exploration. Whenever possible, Inkai hires personnel from Taikonur and surrounding villages.

Mining method

Inkai uses conventional and well-established ISR technology. It has a very efficient process for uranium recovery, developed after extensive test work and operational experience. The process involves five major steps:

- leach the uranium in-situ with sulphuric acid-based lixiviate solution
- recover it from solution with ion exchange resin (takes place at both main and satellite processing plants)
- precipitate it with hydrogen peroxide
- thicken, dewater, and dry it
- package it as U_3O_8 (yellowcake) in drums.

The process requires large quantities of sulphuric acid because there are relatively high levels of carbonate in the ore. In 2007, a fire at a sulphuric acid plant in Kazakhstan, and delays in the start-up of a new plant, restricted the availability of sulphuric acid. Allotments of sulphuric acid to Inkai and other ISR operations in Kazakhstan were reduced. The shortage continued throughout 2008, though it was resolved by the end of that year. Inkai received enough sulfuric acid in 2009 and 2010 to acidify the wellfields as planned.

During 2011, Inkai experienced brief interruptions to its sulphuric acid supply, which had a small impact on production. The supply of sulphuric acid is tight in Kazakhstan. Given the importance of sulphuric acid to Inkai's mining operations, we continue to closely monitor its availability. Our production may be less than forecast if there is a shortage.

Production

Total processing plant production	Based on current mineral reserves, we expect Inkai to produce a total of 99.5 million pounds U_3O_8 (recovered by the processing plant).
Average annual processing plant production	The processing plant has the capacity to produce at an annual rate of 5.2 million pounds per year (100% basis) depending on the grade of the production solution. Inkai is planning to expand the existing satellite plant capacity in order to support this production rate from lower grade solution. Regulatory approval is required to carry out production at the annual rate of 5.2 million pounds per year (100% basis). See *Production increases for 2011, 2012 and 2013*.

Production increases for 2011, 2012 and 2013

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

In August 2011, we entered into a non-binding memorandum of agreement with our partner, Kazatomprom, to increase annual uranium production at Inkai from blocks 1 and 2 to 5.2 million pounds (100% basis). Under the 2011 memorandum of agreement, our share of Inkai's annual production will be 2.9 million pounds with the processing plant at full capacity. We will also be entitled to receive profits on 3.0 million pounds.

Our 2012 and future annual production targets and mineral reserve estimate for Inkai assume and we expect:

- Inkai will obtain the necessary government permits and approvals to produce at an annual rate of 5.2 million pounds (100% basis), including an amendment to the resource use contract
- we reach a binding agreement with Kazatomprom to finalize the terms of the memorandum of agreement
- Inkai will ramp up production to an annual rate of 5.2 million pounds (100% basis).

There is no certainty Inkai will receive these permits or approvals or we will reach a binding agreement with Kazatomprom or that Inkai will be able to ramp up production. If Inkai does not, or if the permits and approvals are delayed, Inkai may be unable to achieve its 2012 and future annual production targets and we may have to recategorize some of Inkai's mineral reserves as resources.

As part of our strategy to increase annual production to 40 million pounds by 2018, we are working with our partner, Kazatomprom, to implement our 2007 non-binding memorandum of understanding.

The memorandum:

- targets future annual production capacity at 10.4 million pounds (100% basis). Our share of the additional capacity is expected to be 50%.
- contemplates studying the feasibility of constructing a uranium conversion facility, as well as other potential collaborations in uranium conversion.

To implement this increase, we need a binding agreement to finalize the terms of the memorandum and various approvals from our partner and the government. We are currently in discussions with Kazatomprom about these initiatives. We expect our ability to double annual uranium production at Inkai will be closely tied to the success of the uranium conversion project.

Sales

Under Kazakhstan's transfer pricing law (which went into effect on January 1, 2009), sales are based on the current uranium spot price. Inkai has one forward uranium sales contract for a portion of its 2012 production, and it is with us.

Funding

We have a loan agreement with Inkai. As of December 31, 2011, there was:

- $192 million (US) of principal outstanding on the loan (in 2011 Inkai repaid $122 million (US) of principal)
- a nominal amount of accrued interest and financing fees on the loan. In 2011, Inkai paid $6 million (US) in accrued interest and financing fees.

Inkai uses 100% of the cash available for distribution each year to pay accrued interest and financing fees. After those amounts are paid, Inkai uses 80% of cash available for distribution each year to repay principal outstanding on the loan until it is repaid in full. The remaining 20% of cash available for distribution is paid to the owners.

We have also agreed to advance funds for Inkai’s work on block 3 until the feasibility study is complete.

Costs and payback

In the March 2010 technical report:

- capital costs remaining were estimated to be $359.2 million (US). This includes $208.6 million (US) for wellfield development. We expect wellfield development costs to decline gradually over the last five years of production.
- payback was forecast in 2012, on an undiscounted, after-tax basis, including all 2009 and prior costs.

Resource use contract

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

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

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

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

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

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

Work programs

Inkai is required to follow the work program appended to the resource use contract, which applies to mining operations over the life of the mine**.** To comply with the new subsoil law, Inkai developed a life of mine work plan and submitted it to the relevant government authority who approved it in April 2011 as part of the approval of Amendment No. 3 to the resource use contract (see *Project documentation* on page 43). The work plan will need to be updated and submitted to the relevant government authority whenever a change is made.

Prior to the new subsoil law, Inkai had to submit an annual work plan to the government authority every year for approval.

Environment

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

Under Kazakhstan law, Inkai needs an environmental permit to operate. Inkai has a permit for environmental emissions and discharges, valid until December 2013, and an emissions permit for drilling activities, valid until December 2012. It also holds water permits.

Insurance

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

Decommissioning

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

Under the resource use contract, Inkai must submit a plan for decommissioning the mine to the government six months before mining activities are complete. It developed a preliminary decommissioning plan to estimate total decommissioning costs, and updates the plan every five years, or when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning estimate is $11 million (US).

Groundwater is not actively restored post-mining in Kazakhstan. See page 85 for additional details.

Kazakhstan government and legislation

Subsoil law

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

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

The subsoil law defines the framework and procedures connected with the granting of subsoil rights, and the regulation of the activities of subsoil users. The subsoil, including the mineral resources it contains, belongs to the state. Resources brought to the surface belong to the subsoil user, unless otherwise provided by contract. The state has pre-emptive and approval rights with some exceptions (for example, for inter-group transfers), if a subsoil user transfers its subsoil rights or if there is a transfer (direct or indirect) of an ownership interest in a subsoil user.

Subsoil rights go into effect when a contract with the relevant government authority is finalized. The subsoil user is given, among other things, the exclusive right to conduct mining operations, to build production and social facilities, to freely dispose of its share of production and to negotiate extensions of the contract.

Until March 12, 2010, the Kazakhstan Ministry of Energy and Mineral Resources (MEMR) was designated as the "competent authority" under the old law. The Kazakhstan Ministry of Industry and New Technologies replaced it, and is the current competent authority under the subsoil law. We refer to the competent authority as the *relevant government authority*.

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

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

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

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

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

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

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

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

Similar to the old law, the state has a priority right on terms not worse than those offered by other buyers.

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

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

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

Contract termination
Under the subsoil law the relevant government authority can terminate a contract before it expires, if a subsoil user does not fix more than two breaches of its obligations under the contract or the project documents within a specific period.

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

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

Local content
Subsoil users must procure goods, works and services in compliance with the subsoil law. Procurement is carried out through a specially created register of the goods, works and services and of the entities (producers) providing them. Subsoil users must give preference to local producers, as long as the goods, works and services comply with applicable standards. The subsoil law also allows a statutory tender commission, which oversees tender procedures, to conditionally discount local producers' bids by 20% relative to foreign bidders. This new local content provision applies to Inkai.

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

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

Inkai submitted the required documentation and received approval of the new life of mine work program as part of the April 14, 2011 approval of Amendment No. 3 to the resource use contract.

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

Strategic deposits
On August 19, 2009, 231 blocks, including all three of Inkai's blocks, were prescribed as strategic deposits under the Governmental Resolution *On Determination of the List of Subsoil (Deposit) Areas having Strategic Importance*.

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

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

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

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

Exploration, drilling and estimates

We did not do any exploration drilling in blocks 1 and 2, and relied instead on historic data to estimate mineral reserves and resources.

Exploration

Historical drilling

- Historical drilling at Inkai included 4,898 holes in blocks 1 and 2, and 510 in block 3.
- Drilling was vertical, on a grid at prescribed density of 3.2 to 1.6 kilometre line spacing and 200 to 50 metre (3.2-1.6 kilometres x 200-50 metres) hole spacing. Additional drilling at grids of 800-400 x 200-50 metres and 200-100 x 50-25 metre grid increased the level of geological knowledge and confidence.
- Vertical holes were drilled with a triangular drill bit for use in unconsolidated formations down to a certain depth and the rest of the holes were cored.
- Volkovgeology, a subsidiary of Kazatomprom, compiled the data for block 1 of the Inkai deposit as well as some of the data for block 2 to produce a report in 1991.

Exploration drilling

- Inkai's exploration and mineral resource evaluation department oversees exploration, including the strategic direction of the drilling program and management of contractors. Inkai has retained a contractor, Volkovgeology, to direct and coordinate day-to-day drilling activities, and to ensure drilling quality, core recovery, surveying, geological logging, sampling, assaying and daily data processing.
- Inkai had drilled a total of 2,603 exploration holes in block 3 as of the end of December 2011 (510 historic holes drilled before 2006, 45 in 2006, 90 in 2008, 456 in 2009, 1,008 in 2010 and 494 in 2011). All drilling conducted on grids of 400 by 50 metre and larger were cored with the core recovery of at least 70% in at least 70% of the drillholes, whereas the infill drillholes in 200 by 50 metre drilling patterns consist of predominately coreless drillholes, in compliance with the requirements of the State Reserve Commission of the Kazakh Republic.
- In addition, a total of 28 hydrogeological test wells were drilled in 2010 and 2011.

Recent activity

- The first phase of the drilling program from 2006 through 2009 was focused on drilling on an 800 x 50 metre grid pattern in the southwestern part of block 3. Also, the mineralization trends were followed along the northwestern border using sparser (800 to 1600 x 100 to 200 metre) drilling patterns.
- The second phase of the drilling program from January to October 2010 was aimed at developing an 800 x 50 metre infill drilling grid pattern throughout the mineralized trend identified along the northwestern border, as well as the trend developed along the southern border.
- The third phase of drilling started in October 2010 and continued throughout 2011. Progressively tightening drilling grids (from 800 x 50 metre to 400 x 50 metre to 200 x 50 metre) were used to delineate mineralization in the southwestern and western parts of block 3.
- Hydrogeological testing work (one well and multiwell aquifer pump tests) was conducted in 2010 and 2011 in the southwestern part of block 3 to establish the hydrogeological characteristics of the aquifers of the hosting mineralized horizons, as well as their relationship to the surrounding aquitards and other aquifers. These hydrogeological characteristics and relationships are geotechnical parameters important for the ISR method of mining.
- Results of exploration and delineation:
  - traced the presence of mineralization throughout block 3 with greater certainty. There was a significant increase in the extent of mineralization in many places, compared to results of predecessors, which were based on sparser historical drilling grids.
  - encountered more complex morphology of the mineralized zones of block 3
  - used the mineralization delineation from 800 x 50 metre and 200 x 50 metre drilling grids in block 3 to form a preliminary estimate of the mineralization for most of the area covered

- led to a preliminary estimate of the mineralization on the southwestern corner of block 3, which was reviewed and approved by the State Reserve Commission
- confirmed the need for additional drilling to close off mineralization zones and better define their morphology and continuity
- identified two sites for conducting ISR tests in two separate horizons (Inkuduk and Mynkuduk) and an ISR test work technical project package is being prepared**.**

Sampling and analysis

Sampling

- Detailed sampling procedures guide the sampling interval within the mineralization. Holes are drilled on progressively tightening grids: 3.2 to 1.6 kilometre x 200-50 metre, 800-400 metre x 200-50 metre and 200-100 metre x 50-25 metre. When core recoveries are higher than 70% and radioactivity greater than 40 micro-roentgen per hour, core samples are taken at irregular intervals of 0.2 to 1.2 metres. Sample intervals are also differentiated by barren or low permeability material.
- The drillholes are nearly vertical and the mineralized horizons are almost horizontal, so the mineralized intercepts represent the true thickness of the mineralization.
- Inkai's geophysical crews survey the drillholes, logging radiometric, electrical (spontaneous potential and resistivity), caliper and deviation data. For greater accuracy, they collect downhole data only from open or uncased holes.
- Sampling is done sectionally from half of the core, which is divided along its axis and cleared from the clay envelope. The average core sample length is 0.4 metres.
- The split core is tested for grainsize and carbonate content.
- Since gamma probing of the drillholes is used to estimate mineral resources, assays from core sampling are used only when core recovery is at least 70%, for correlation.
- Core recovery is generally considered to be acceptable given the unconsolidated state of the mineralized material.

Analysis

We carried out a data verification process to validate the historic Kazakh mineral resource and reserve estimate. This included:

- studying and coding all 1,294 drillholes on the Volkovgeology cross sections
- sampling and assaying all drillhole core that could be recovered for uranium and radium content (and according to the drill logs, this recovery was very good)
- recording the location of each sample and its assay results on the drillhole log (referred to as a passport).

Quality control

- Our geoscientists have witnessed core handling, logging and sampling used at the Inkai mine and considers the methodologies to be very satisfactory and the results representative and reliable.
- Geologists with Inkai, Volkovgeology, the State Reserves Commission and Cameco, have validated the current database a number of times. Our geologists consider it relevant and reliable.
- The findings are supported by results of the leach tests, recent production, and drilling results on block 2 and exploration drilling in block 3.
- The exchange of digital drillhole information between Inkai and us allows all information to be available for our review.

Sample security

Inkai's current sampling process follows the strict regulations imposed by the Kazakhstan government, and includes the highest level of security measures, quality assurance and quality control. We have not been able to locate the documents describing sample security for historic Kazakhstan exploration on blocks 1, 2 and 3, but we believe the security measures taken to store and ship samples were of the same high quality.

Accuracy

We consider the historic Kazakhstan exploration data adequate and reliable for estimating mineral reserves and resources, based on the 2003 and 2007 validation of Kazakhstan estimated uranium reserves for blocks 1 and 2 (see *sampling and analysis*). We consider the exploration data from Inkai's exploration program at block 3 reliable for estimating mineral reserves and resources.

Mineral reserve and resource estimates

Please see page 73 for our mineral reserve and resource estimates for Inkai.

Uranium – development project

Cigar Lake

Cigar Lake is the world's second largest high-grade uranium deposit, with grades that are 100 times the world average. We are a 50% owner and the mine operator. Cigar Lake uranium will be milled at McClean Lake.

Cigar Lake, which is being developed, is one of our three material uranium properties.

Location	Saskatchewan, Canada
Ownership	50.025%
End product	uranium concentrates
Mine type	underground
Estimated mineral reserves (our share)	108.4 million pounds (proven and probable) average grade U_3O_8 – 18.30%
Estimated mineral resources (our share)	1.1 million pounds (measured and indicated) average grade U_3O_8 – 2.25%
	62.2 million pounds (inferred) average grade U_3O_8 – 12.59%
Mining method	jet boring
Target production date	begin commissioning in ore in mid-2013 first packaged pounds in the fourth quarter of 2013
Target annual production (our share)	9 million pounds at full production
Estimated mine life	15 years (based on current mineral reserves)
Estimated decommissioning cost	$27.7 million (to the end of construction)

Business structure

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

- Cameco – 50.025% (operator)
- AREVA – 37.1%
- Idemitsu Canada Resources Ltd. – 7.875%
- TEPCO Resources Inc. – 5.0%

History

1976	• Canadian Kelvin Resources and Asamera Oil Corporation form an exploration joint venture, which includes the lands that the Cigar Lake mine is being built on
1977	• Saskatchewan Mining Development Corporation (SMDC), one of our predecessor companies, acquires a 50% interest
1980	• Waterbury Lake joint venture formed, includes lands now called Cigar Lake
1981	• Deposit discovered by surface drilling – it was delineated by a surface drilling program between 1982 and 1986
1985	• Reorganization of the Waterbury Lake joint venture - Cigar Lake Mining Corporation becomes the operator of the Cigar Lake lands and a predecessor to AREVA becomes the operator of the remaining Waterbury Lands • SMDC has a 50.75% interest
1987-1992	• Test mining, including sinking shaft 1 to 500 metres and lateral development on 420 metre, 465 metre and 480 metre levels
1988	• Eldorado Resources Limited merges with SMDC to form Cameco
1993 - 1997	• Canadian and Saskatchewan governments authorize the project to proceed to regulatory licensing stage, based on recommendation of the joint federal-provincial panel after public hearings on the project's environmental impact
2000	• Jet boring mining system tested in waste and frozen ore
2001	• Joint venture approves a feasibility study and detailed engineering begins in June
2002	• Joint venture is reorganized, new joint venture agreement is signed, Rabbit Lake and JEB toll milling agreements are signed, and we replace Cigar Lake Mining Corporation as Cigar Lake mine operator
2004	• Environmental assessment process is complete • CNSC issues a construction licence
2005	• Development begins in January

2006	• Two water inflow incidents delay development:
	  • in April, shaft 2 (which is under construction) floods
	  • in October, underground development areas flood
	• In November, we begin work to remediate the underground development areas

2008	• Remediation interrupted by another inflow in August, preventing the mine from being dewatered
2009	• Remediation of shaft 2 completed in May • We seal the 2008 inflow in October
2010	• We finish dewatering the underground development areas in February, and establish safe access to the 480 metre level, the main working level of the mine • We substantially complete cleanup, inspection, assessment and securing of underground development and resume underground development in the south end of the mine • We backfill the 465 metre level
2011	• We begin to freeze the ground around shaft 2 and restart freezing the orebody from underground • We begin freezing the orebody from the surface • We resume the sinking of shaft 2 and early in 2012 achieve breakthrough to the 480 metre level, establishing a second means of egress for the mine • We receive regulatory approval of our mine plan and begin work on our Seru Bay project • Agreements are signed by the Cigar Lake and McLean Lake joint venture partners to mill all Cigar Lake ore at the McClean Lake JEB mill and the Rabbit Lake toll milling agreement is terminated

Technical report

This project description is based on the project's technical report: *Cigar Lake Project, Northern Saskatchewan, Canada,* dated February 24, 2012 (effective December 31, 2011).

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

The report was prepared for us in accordance with NI 43-101, by or under the supervision of C. Scott Bishop, P. Eng, Grant J.H. Goddard, P. Eng., Alain G. Mainville, P. Geo, and Eric Paulsen, P. Eng., Pr.Eng. They are all *qualified persons* within the meaning of NI 43-101, but are not independent of us.

For information about uranium sales see pages 11 and 12, environmental matters see *Sustainable development* starting on page 82, and taxes see page 97.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see pages 96 and 97.

About the property

Location

Near Waterbury Lake, 660 kilometres north of Saskatoon. The mine site is four kilometres long and six kilometres wide.

Accessibility

Access to the property is by an all-weather road and by air. Supplies are transported by truck from Saskatoon and elsewhere. There is an unpaved airstrip and air terminal east of the mine site.

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

Leases

Surface lease

We acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. In 2011, the surface lease agreement was amended to increase the area of the surface lease to implement the proposed discharge of treated effluent to Seru Bay at nearby Waterbury Lake. In addition, the separate lease for the Cigar Lake airstrip was amalgamated into this single lease. The lease covers approximately 1,042 hectares and expires in May 2044.

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

Mineral lease

We have the right to mine the deposit under ML-5521, granted to us by the province of Saskatchewan. The lease covers 308 hectares and expires December 1, 2021. We have the right to renew the lease for further 10-year terms.

Mineral claims

A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 25 mineral claims (Nos. S-106540 to 106564), totaling 92,740 hectares, adjoining the mineral lease and surrounding the site. We have title to all of these claims until 2023.

Climate

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

Setting

The deposit is 40 kilometres inside the eastern edge of the Athabasca basin in northern Saskatchewan. The topography and environment are typical of the taiga forested lands in the Athabasca basin. This area is covered with 30 to 50 metres of overburden. Vegetation is dominated by black spruce and jack pine. There is a lake known as "Cigar Lake" above the portion of the deposit that has inferred resources.

Geology

The deposit is at the unconformity contact between rock of the Athabasca Group and underlying lower Proterozoic Wollaston Group metasedimentary rocks. The Key Lake, McClean Lake and Collins Bay deposits all have a similar structural setting. While Cigar Lake shares many similarities with these deposits (general structural setting, mineralogy, geochemistry, host rock association and the age of the mineralization), it is distinguished from other similar deposits by its size, very high grade, and the high degree of clay alteration.

Cigar Lake's geological setting is similar to McArthur River's: the sandstone that overlays the deposit and basement rocks is water-bearing, with large volumes of water at significant pressure. Unlike McArthur River, however, the deposit is flat lying.

Mineralization

The Cigar Lake deposit is approximately 1,950 metres long, 20 to 100 metres wide, and ranges up to 13.5 metres thick, with an average thickness of about 5.4 metres. It occurs at depths ranging between 410 to 450 metres below the surface.

The deposit has three distinct styles of mineralization:

- high-grade mineralization at the unconformity
- fracture controlled, vein-like mineralization higher up in the sandstone
- fracture controlled, vein-like mineralization in the basement rock.

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

The deposit consists mainly of three dominant rock and mineral facies in varying proportions: quartz, clay (primarily chlorite with lesser illite) and metallic minerals (oxides, arsenides, sulphides). In the eastern part of the deposit (Phase 1), the ore is 50% clay matrix, 20% quartz and 30% metallic minerals, visually estimated by volume, overlain by a very weak mineralized clay cap one to five metres thick. In the lower-grade western part of the deposit (Phase 2), the proportion changes to 20% clay, 60% quartz and 20% metallic minerals.

About the operation

Cigar Lake is a development project with sufficient surface rights to meet future mining operation needs for the current mineral reserves.

Permits

Please see page 58 for more information about regulatory approvals for Cigar Lake.

Infrastructure

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

- an underground mine with one shaft constructed and one shaft under construction
- waste rock stockpiles
- ore slurry load out building (substantially completed)
- contingency ponds
- water treatment ponds
- water treatment plant
- temporary administration building
- construction camp
- freeze plant
- sewage lagoon
- an employee residence
- gravel airstrip and terminal
- electrical substations and powerhouse
- fuel and propane supply, storage and distribution facilities.

The current surface lease is sufficient to accommodate personnel, access to water, airport, site roads and other necessary buildings and infrastructure.

The underground workings are confined to a small portion of the area of the mineral lease.

Water, power and heat

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

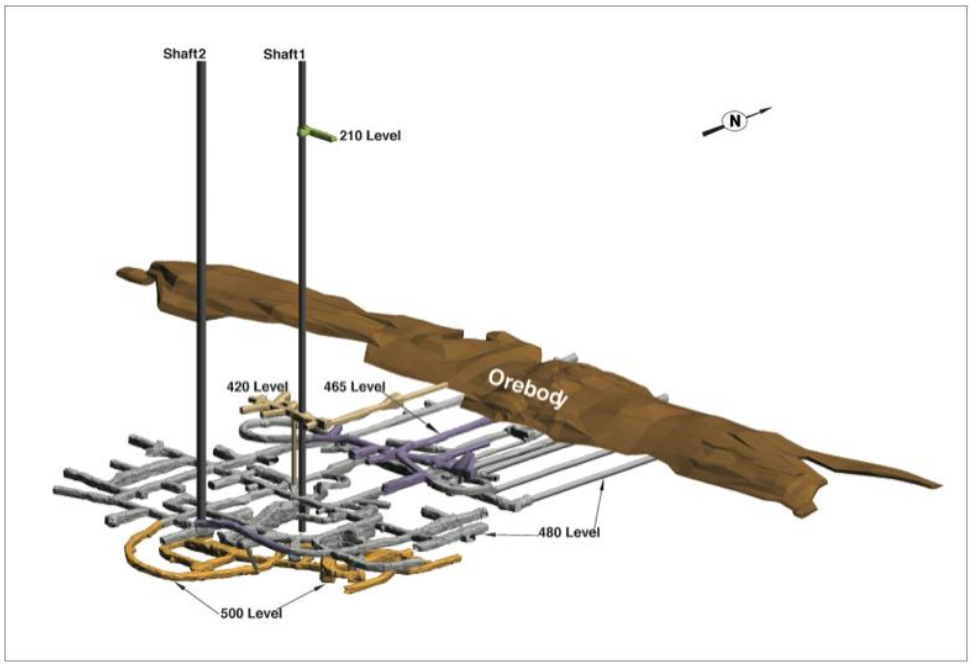
Cigar Lake operates throughout the year despite cold winter conditions. During the winter, we use propane-fired burners to heat the fresh air necessary to ventilate the underground workings.

Employees

Employees are recruited first from communities in the area, then from major Saskatchewan population centres, like Saskatoon and then from outside the province.

Mining method

We will use a number of innovative methods and techniques to mine the Cigar Lake deposit.



Bulk freezing

The sandstone that overlays the deposit and basement rocks is water-bearing, with large volumes of water under significant pressure. We will freeze the ore zone and surrounding ground in the area to be mined, to prevent water from entering the mine and to help stabilize weak rock formations. Bulk freezing reduces but does not eliminate the risk of water inflows.

In the past, bulk freezing has been done from underground. In 2010, however, we tested and began to implement an innovative surface freeze strategy**,** which we expect will provide the following benefits:

- reducing risk to the construction schedule in two ways: (i) the surface freeze process can start before developing the underground tunnels; and (ii) the construction activities underground are simplified by moving some of the related freezing activities and infrastructure to surface
- contributing positively to overall project economics.

Our plan is to use a hybrid freezing approach. We will use surface freezing to support the rampup period and underground freezing for the longer term development of the mine. In 2011, we restarted freezing a portion of the orebody using holes from underground that had been completed prior to the 2006 inflow, along with initiating freezing in a group of the newly completed surface freezeholes.

Also in 2011, we used freezing around shaft 2 to support the sinking and in early 2012 we broke through on the 480 metre level.

Jet boring

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. Overall, our initial test program was a success and met all initial objectives. This method is new to the uranium mining industry. It 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 the ore storage sumps, allowing it to settle
- using a clamshell, transporting the ore from the sump storage to a grinding and processing circuit, eventually loading a tanker truck with ore slurry for transport to the mill
- filling each cavity in the orebody with concrete once mining is complete
- starting the process again with the next cavity.

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

Although we have successfully demonstrated the jet boring mining methods in trials, this method has not been proven at full production. Test mining trials have been completed on a limited number of cavities that may not be representative of the deposit as a whole. As we ramp up production, there may be some technical challenges, which could affect our production plans including, but not limited to, variable or unanticipated ground conditions, ground movement and cave ins, water inflows and variable dilution, recovery values and mining productivity. There is a risk that the rampup to full production may take longer than planned and that the full production rate may not be achieved on a sustained and consistent basis. A comprehensive testing, pre-commissioning, commissioning and startup plan has been implemented to assure successful startup and on-going operations. We are confident we will be able to solve challenges that may arise, but failure to do so would have a significant impact on our business.

Our mining plan requires four jet boring system units. We currently have one unit and in 2011, we signed an agreement with a European based, global mining and tunnelling equipment supplier to manufacture and supply three additional jet boring system units. We plan to procure additional equipment for the jet boring system in 2012. There is a risk that the rampup to full production at Cigar Lake may take longer than planned if the manufacture or delivery of the three additional units does not take place as scheduled. As part of our startup plan noted above, we are working with our supplier to assure timely delivery of these units.

Mine development

There are two main levels in the mine: the 480 and 500 metre levels. Both levels are located in the basement rocks below the unconformity. The 480 metre level provides access to the production area below the orebody and is typically more than 25 metres below the ore zone. The main underground processing and infrastructure facilities are located on this level. The 500 metre level is accessed via a ramp from the 480 metre level. The 500 metre level provides for the main ventilation exhaust drift for the mine, the mine dewatering sump and additional processing facilities. Construction of these facilities is in progress.

Both mine development for construction and operation uses two basic development systems: drill and blast with conventional ground support, and mine development system, a 5.1 metre diameter full face tunnel boring machine, which installs a precast concrete tunnel lining for ground support. We are evaluating the use of a roadheader excavator for those areas of weak ground away from the orebody.

With the exception of the mine development system headings, the infrastructure excavations and the access drifts are being constructed using conventional drill and blast mining methods. Geotechnical drilling and analysis of ground conditions is completed prior to confirming permanent infrastructure locations.

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. See *Rehabilitating the mine* below.

Processing

Cigar Lake ore slurry will be processed in two steps:

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

Processing – The containers of ore slurry will be trucked to AREVA's McClean Lake JEB mill, 70 kilometres to the northeast for processing. See *Toll Milling Agreement* below for a discussion of this arrangement.

Tailings

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

Waste

The waste rock piles are separated into three categories:

- clean rock – will remain on the minesite for use as aggregate for roads, concrete backfill and future site reclamation
- mineralized waste (>0.03% U_3O_8) – will be disposed of underground at the Cigar Lake mine. We have not identified any mineralized waste in development to date
- waste with acid-generating potential – temporarily stored on engineered lined pads. It will be transported to the McClean Lake facility for permanent disposal.

Water discharged from the mine is currently treated and released to Aline Creek. In 2011, we received approval to change the discharge location to Seru Bay (see page 58). Completion of construction and subsequent operating approvals from the CNSC and the province of Saskatchewan are expected in 2012. We expect to begin discharging treated water directly to Seru Bay in mid-2012, as planned, once the construction of the pipelines and associated infrastructure is completed.

Production

We updated the mining plan after the two mine in-flows, and expect commissioning in ore to begin in mid-2013, with the first pounds to be packaged at the McClean Lake JEB mill in the fourth quarter of 2013. The mining plan is designed to extract all of the current mineral reserves. The following is a general summary of the production schedule

guideline and parameters on a 100% basis:

Total mill production	• 213.5 million pounds of U_3O_8, based on an overall milling recovery of 98.5% • Rampup to full production rate by the end of 2017 • Full annual production of 18 million pounds by 2018 (less than this in the early and late years of the current mineral reserve life)
Total mine production	• 537 thousand tonnes of ore
Average annual mine production	• 100 to 140 tonnes per day during peak production, depending on ore grade
Average mill feed grade	• 18.3% U_3O_8

To meet our production schedule, the ground has to be fully frozen in the area being mined before we start jet boring mining.

We have divided the orebody into production panels, and will have one jet boring mining unit operating in a panel. At least four production panels need to be frozen at one time to achieve the full production rate of 18 million pounds per year. At any one time two jet boring machines will be jetting (producing ore) while the other two are in the process of moving/setting up, or in the backfill cycle.

Payback

In the February 2012 technical report, we estimated payback, on an undiscounted pre-tax basis, in 2017. This did not include all construction costs spent on Cigar Lake prior to 2012, including remediation costs.

Costs

As of December 31, 2011, we had:

- invested about $675 million for our share of the construction costs to develop Cigar Lake
- expensed about $86 million for our share of remediation expenses, including about $4 million in 2011
- expensed about $35 million for our share of standby costs.

We expect to spend an additional $484 million (our share) to complete this project, which requires us to:

- invest about $429 million for our share of the remaining capital costs, bringing our total share to about $1.1 billion
- expense about $55 million for our share of the remaining standby costs, bringing our total share to about $90 million.

This would bring our total share of the cost for this project to about $1.3 billion since 2004.

	Cameco's share of costs ($ millions)		
Cost area description	**2004-2011**	**2012-2015**	**Total (100%)**
Capital costs	675	429	1,104
Remediation costs	86	-	86
Standby costs	35	55	90
Total costs	**796**	**484**	**1,280**

Forecasts of costs, production, mine life and payback are forward-looking information, and are based specifically on the assumptions and risks listed below, and the assumptions and the material risks discussed on pages 2 and 3.

Assumptions

- there is no material delay or disruption in our plans as a result of ground movements, cave ins, additional water inflows, a failure of seals or plugs used for previous water inflows, natural phenomena, delay in acquiring critical equipment, equipment failure or other causes
- there are no labour disputes or shortages
- all necessary contractors, equipment, operating parts, supplies, regulatory permits and approvals are obtained when they are needed
- processing plants are available and function as designed and sufficient tailings capacity is available
- our mineral reserves estimate and the assumptions it is based on are reliable
- our Cigar Lake development, mining and production plans succeed
- our expectation that the jet boring mining method will be successful and that we will be able to solve technical challenges as they arise
- our expectation that we will be able to obtain the additional jet boring system units we require on schedule.

Material risks

- an unexpected geological, hydrological, underground condition or an additional water inflow, further delays our progress
- ground movements and cave ins
- necessary regulatory permits or approvals cannot be obtained or maintained
- natural phenomena, labour disputes, equipment failure, delay in obtaining the required contractors, equipment, operating parts and supplies or other reasons cause a material delay or disruption in our plans
- processing plants are not available or do not function as designed and sufficient tailings facility capacity is not available
- our mineral reserves estimate is not reliable
- our development, mining or production plans for Cigar Lake are delayed or do not succeed for any reason, including technical difficulties with the jet boring mining method or our inability to acquire any of the required jet boring equipment.

Assurance of success program

We adopted an *assurance of success* program for Cigar Lake that uses risk-based quality assurance planning. This involves carrying out a thorough assessment of the risks associated with all principal processes before implementation, with a goal of making sure we understand all the risks, have measures in place to mitigate them, and alternate plans to address any risks that cannot be fully mitigated. We regularly monitor and evaluate any changes or conditions that we did not anticipate in our original plan, assess any new risks and then update the plan.

Reclamation and financial assurances

In 2002, our *preliminary decommissioning plan* for Cigar Lake was approved by the CNSC and the Saskatchewan Ministry of Environment. We revised this plan and the accompanying *preliminary decommissioning cost estimate* when we renewed our federal licence in 2008. These documents include our estimated decommissioning costs up to the end of the construction of the mining facility.

We, along with our joint venture partners, posted letters of credit as financial assurances with the Saskatchewan Ministry of Environment in the amount of $27.7 million, to cover these costs.

As part of our operating licence application, we will review the plan and cost estimate and update them to account for changes in our decommissioning liabilities.

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

Water inflow and mine rehabilitation

Cigar Lake Water inflow incidents

From 2006 through 2008, the Cigar Lake project suffered several setbacks as a result of three water inflow incidents. The first occurred in April of 2006 resulting in the flooding of the then partially completed shaft 2. The two subsequent incidents involved inflows in the mine workings connected to shaft 1 and resulted in flooding of the mine workings completed to that point in time.

We developed and successfully executed recovery and remediation plans for both the shaft 2 inflow and the 2 inflows experienced in the shaft 1 workings. This culminated in the resumption of sinking of shaft 2 in the first half of 2011 and the successful break through to the 480 metre level of the main mine workings in early 2012 and the commencement and completion of underground remediation and restoration of the shaft 1 workings in 2010 and 2011.

Rehabilitating the mine

Through 2010 and 2011, we developed a comprehensive plan and successfully proceeded with remediation to restore the underground workings at Cigar Lake. This involved inspecting the mine and completing any additional remedial work to protect it from an inflow or significant ground failure (for example, determining if additional reinforcement was required in higher risk areas). The work to secure the mine was completed in 2011.

With successful re-entry to main mine working achieved in early 2010 a comprehensive underground rehabilitation program was implemented. The program of work involved rehabilitating the remaining lower risk areas of the mine (including 480 and 500 metre levels) and re-establishing the full mine ventilation circuit.

Some of the specific tasks included:

- re-establishing the permanent refuge stations and communications
- installing the emergency back-up pumping capacity
- re-establishing the orebody freezing program
- starting the shaft 2 freezing program
- preparing areas to resume construction/development activities
- replacing electrical components and equipment damaged due to flooding.

As part of securing the mine and underground rehabilitation program, detailed assessments of the underground conditions were completed which provided further input to the overall Cigar Lake design and strategy, allowing the mine plan to be further optimized.

Construction

With the mine fully secured, the underground rehabilitation program complete and regulatory requirements met, we resumed underground construction activities in 2011 that had been interrupted by the October 2006 water inflow.

Completing shaft 2

We completed the dewatering of shaft 2 in April 2009 and remediation was completed in May 2009. The freezing infrastructure to support the completion of shaft sinking was completed in early 2011 and the freeze system activated. Shaft sinking resumed in the first half of 2011 and by early 2012, we had achieved breakthrough to the 480 metre level and sinking to completion (the 500 metre level) continues. The breakthrough to the 480 metre level provided for a second means of egress for the mine and for increases in ventilation.

In 2011, a hydrostatic liner was installed in the shaft from the 368 metre depth to the 480 metre level, where it will transition back to a non-hydrostatic liner.

We plan to complete shaft 2 by the second quarter of 2013, taking the following steps:

- sinking the shaft from the current shaft bottom depth of 480 metres to its final depth of 500 metres – to be completed in 2012
- establishing a shaft station at the 480 metre level
- installing shaft furnishings including construction of a concrete ventilation partition, installation of electrical cable, water services, ore slurry pipes and permanent service cage facilities
- commissioning of the shaft systems.

Increase pumping capacity

In 2010, we increased our pumping capacity to meet our standard for this project, which is to secure pumping capacity of at least one and a half times the estimated maximum inflow.

In 2009, we received interim approval to release up to 1,100 m^3/hr of treated water in non-routine circumstances, to accommodate remediation activities in the mine. In 2011, we received approval to allow direct discharge of treated water to Seru Bay of Waterbury Lake which is intended to increase the mine's dewatering capacity, and then approval to proceed with construction. Completion of construction and subsequent operating approvals from the CNSC and the Province of Saskatchewan are expected in 2012. As of early 2012, our mine dewatering capacity has increased to 2,500 m^3/hr and our mine water treatment capacity has been increased to 2,550 m^3/hr.

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

Surface construction

We began construction on the Seru Bay infrastructure project in 2011, and completed several surface facilities by the end of the year. Surface construction at Cigar Lake is 56% complete. Important surface construction still remaining includes the new administration/services building, the Seru Bay pipeline, completion of the surface ore process facilities and the new propane tank farm, and expansion of the 138 kilovolt electrical substation and the permanent employee residence.

Underground development

We estimate that the underground development necessary to start production is 70% complete.

Toll milling agreement

Milling the slurry from the Cigar Lake mine is a two-step process:

- processing the ore slurry into JEB uranium solution
- processing the JEB uranium solution into uranium concentrates.

The McClean Lake mill will carry out this work according to the terms of a toll milling agreement.

McClean Lake JEB toll milling agreement

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

The Cigar Lake joint venture will pay a toll milling fee and its share of milling expenses.

In certain circumstances, the Cigar Lake joint venture is required to pay standby costs. Standby costs of $22 million were expensed in 2011 with the JEB mill placed in a care and maintenance mode in July 2010. We estimate our share of further standby costs to be about $55 million. These costs will be expensed as incurred, and are not included in the project's capital cost.

A number of mill modifications have been completed to date at the JEB mill to process Cigar Lake ore. Under the memorandum of agreement, the McClean Lake joint venture is required to further modify and expand the JEB mill to

process and package all of Cigar Lake's current mineral reserves. The Cigar Lake joint venture has agreed to pay for the capital costs for such modification and expansion. Construction of the expanded facility is scheduled to begin in 2012 and be completed in 2015. Mill operation will continue during the construction stages in order to meet the Cigar Lake production schedule.

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

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

Regulatory approvals

Environmental assessment

- In 1995, the *Cigar Lake Project, Environmental Impact Statement* was submitted to the Joint Federal-Provincial review panel on Uranium Mining Developments in Northern Saskatchewan.
- In 1997, the panel recommended that the project should proceed, pending identification of a suitable waste rock disposal location.
- The Canadian and Saskatchewan governments both accepted the panel's recommendation and in 1998 both government bodies approved the project in principle.
- In February 2004, we submitted an environmental assessment study report for the Cigar Lake mine plan. The CNSC agreed that this report met the requirements of the *Canadian Environment Assessment Act* and approved proceeding with the licensing and permitting process.

Construction licence

- The CNSC issued a construction licence in December 2004.
- With water inflows in 2006 and 2008, the CNSC has twice extended the licence term. It now expires on December 31, 2013. The second extension was provided to give us time to complete mine construction, including remediation, sinking shaft 2 and surface construction.
- In 2011, we received approval for additional licence activities including our revised mine plan allowing for completion of remediation and resumption of pre-flood underground construction and development activities.
- In early 2012, we received approval for the establishment of shaft 2 as a second means of egress.

Operating licence

While we are completing mine construction, we will be preparing an operating licence application for submission to the CNSC. This licensing process can proceed while construction is being completed.

Processing licences

- An amendment is required to the McClean Lake JEB mill licence to process Cigar Lake ore at the McClean Lake JEB mill. We do not anticipate any issues with the amendment to the licence. In 1997, the environmental impact statement for this processing was approved.

Water treatment/effluent discharge system

- We designed the Cigar Lake system for both routine and non-routine water treatment and effluent discharge, and it has been approved and licensed by the CNSC and the Saskatchewan Ministry of Environment. As well, under the provincial operating approval, specific approvals to construct and/or operate relevant components of the surface infrastructure will be required.
- We want to manage the potentially higher water inflow we may see during construction and operations by building infrastructure that will allow us to discharge treated water directly to Seru Bay of Waterbury Lake. In 2008, we submitted an application to the CNSC for this infrastructure that triggered a joint federal and provincial environmental assessment screening under the *Canadian Environment Assessment* Act. In 2011, our application was accepted and we received approval to proceed with construction. We have interim approvals and measures in

place to increase discharge to the Aline Creek system if we need to prior to the Seru Bay discharge point being operational. We require further operating approvals from the CNSC and the Province of Saskatchewan, which we expect in 2012.

Exploration, drilling and estimates

The Cigar Lake uranium deposit was discovered in 1981 by surface exploration drilling.

We focus most of our exploration activities on mineral lease ML-5521. AREVA is responsible for exploration activity on the 25 surrounding claims. The data from the exploration program on the 25 mineral claims is not part of the database used for the estimate of the mineral resources and mineral reserves at Cigar Lake.

Surface drilling – mineral lease
A total of 406 surface holes have been drilled totalling 178,255 metres. 215 of these were drilled within the known deposit limits.

1982 – 1986	A major surface drilling program delineated the deposit
1987 – 2002	Drilling for geotechnical and infill holes
2007 – 2009	51 holes drilled for various geotechnical and geophysical programs
2010	45 drillholes were completed as part of delineation and geotechnical programs
2011	87 drillholes were completed as part of delineation, geotechnical and surface freezehole programs

Additional delineation drilling is planned over Phase 2 as well as freezehole drilling over Phase 1 in 2012.

Surface drilling – mineral claims
In 2006, exploration drilling confirmed the existence of unconformity style mineralization outside the mineral lease, 650 metres east of Phase 1 mineralization.

Since then, additional exploration in the area delineated a mineralized zone 210 metres in strike length and 30 metres in across-strike length. Additional drilling is planned for this mineralization in 2012.

Underground drilling
Diamond drilling from underground was mainly to determine the rock mass characteristics of both mineralized and waste rock before development and mining.

1989 – 2006	132 underground diamond drillholes were drilled totalling 11,108 metres. Of these, 10 intersected the deposit. A total of 347 freeze and temperature monitoring holes were drilled from the underground workings during the construction phase. 182 of these were gamma surveyed by radiometric probing. Due to the drilling method for freezeholes, no core is available for assays. Uranium content is estimated by radiometric probing of the holes. In 2011, we developed conversion coefficients to convert the radiometric probe results to equivalent U_3O_8 grades. This allowed the 182 underground freezeholes to be incorporated into the Cigar Lake mineral resource model.
2007 – 2009	There was no underground drilling because of flooding.
2010 - 2011	90 holes were drilled underground totalling 8,453 metres. None intersected the deposit. 5 of the 90 holes were drilled from inside shaft 2, in advance of the top seal grout cover. 74 holes were drilled from the 480 metre level and the remaining 11 holes were drilled from the 500 metre level.

Underground drilling will continue to be conducted to assess ground conditions prior to development.

Sampling and analysis

Sampling

In the early stages of exploration drilling, sampling intervals were of various lengths, up to 50 centimetres, based on geological differences in the character of the mineralization.

Starting in 1983, sampling intervals were fixed at a standard interval of 50 centimetres. All sample results have since been normalized at 50 centimetres for estimating mineral resources.

Vertical surface drillholes generally represented the true thickness of the zone since the mineralization is flat.

Samples were drawn from two phases of the deposit:

Phase 1 – the eastern part (700 metres long by 150 metres wide)

- nominal drillhole fence spacing was 25-50 metres east-west by 20-25 metres north-south

Phase 2 – the western part (1,200 metres long by 100 metres wide)

- nominal drillhole fence spacing was 200 metres east-west by 20 metres north-south
- 30 infill drillholes were completed in 2011 for select areas of the western part of the Phase 2 deposit, which locally reduced the drillhole spacing down to a 15 metre by 15 metre pattern. These holes have not been included in the current resource estimate as drilling is ongoing in 2012.

One additional 50 centimetre sample was taken from each of the upper and lower contacts of the mineralized zone, to ensure that the zone was fully sampled at the 0.10% U_3O_8 cut-off.

All holes were core drilled and gamma probed whenever possible. In-hole gamma surveys and hand held scintillometer surveys guided sampling of core for assay purposes.

Analysis

- More than 5,400 samples were assayed from surface and underground drilling.
- Starting in 1983, all drilling and sample procedures were standardized and documented. This gives us a high degree of confidence in the accuracy and reliability of results of all phases of the work.
- The entire core from each sample interval was taken for assay, except for some of the earliest sampling in 1981 and 1982. This reduced the sample bias inherent when splitting core.
- Underground drillholes were sampled and gamma probed to the same standards as the surface drillholes.
- Most of the underground drillholes were rotary holes for ground freezing so no core was recovered. For these holes, we have relied on radiometric results to determine the grade to be used in the mineral resource model.
- Chemical assays were used to determine grade in mineralized rock.
- Core recovery through the ore zone has generally been very good. Where necessary, uranium grade determination is supplemented by down-hole radiometric probing results.
- To estimate mineral resources and reserves when core recovery was between 75% and 100%, the assayed value was deemed to be representative of the whole interval. If the core recovery was below 75%, the sample was replaced by length weighted probing values. Of the 3,271 assayed samples for Phase 1 mineralization, only 159 samples had recoveries of less than 75%.
- Sample composites were calculated at 1.0 metre intervals by taking the length weighted average for the mineralized intercept in each drillhole using a 1.0 % U_3O_8 cut-off grade.

Width	**Assay**	**Density**
• largest 13.5 metres	• highest 82.9% U_3O_8	• highest 8.44 g/cm^3
• smallest 0.4 metres	• lowest 0.0% U_3O_8	• lowest 1.27 g/cm^3
• average 5.4 metres		

Quality control and data verification

The quality assurance and quality control procedures were typical for the time. The majority of uranium assays in the database were obtained from Loring Laboratories Ltd. For uranium assays over 5% U_3O_8,12 standards and two blanks were run with each batch of samples and for uranium assays over 5% U_3O_8, a minimum of four standards were run with each batch of samples.

More recent assaying at the Saskatchewan Research Council includes preparing and analysing standards, duplicates and blanks. A standard is prepared and analysed for each batch of samples and one out of every 40 samples is analysed in duplicate. To validate the core depth, the in-hole gamma survey results on core were compared at site to hand-held scintillometer surveys.

The original database, from which most of the mineral resources and mineral reserves are estimated, was compiled by previous operators. We have reviewed a total of 1,286 original signed assay certificates, representing 29% of the surface and underground drillhole results to confirm data integrity. Additional QA/QC measures taken include:

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

We are satisfied with the quality of data obtained from the exploration drilling program and consider it valid for estimating mineral resources and mineral reserves. Radiometrics of closely spaced underground freezehole drilling have also confirmed the continuity and high grades of the ore zone.

Sample security

We do not know what historic security measures were in place when the deposit was delineated. Current core logging is carried out in the same facility used during the delineation drilling. It is well removed from the mine site and behind a locked entry gate, which prevents unauthorized access.

All samples were collected and prepared under the close supervision of a qualified geoscientist in a restricted core processing facility. The core samples are collected and transferred from the core boxes to high strength plastic sample bags then sealed. The sealed bags are then placed in steel drums and shipped under the Transport of Dangerous Goods regulations through our warehouse facilities at Cigar Lake directly to the laboratory.

We are satisfied with all aspects of sample preparation and assaying. The sampling records are meticulously documented and samples are whole core assayed to reduce bias, although some ore intersections were sawn in half for display purposes. The assaying was done to a high standard and the QA/QC procedures employed by the laboratories are adequate.

We believe that the sample security was maintained throughout the process. Furthermore, the continuity and high grade nature of the ore zone has been confirmed from radiometrics of closely spaced underground freezehole drilling.

Mineral reserve and resource estimates

Please see page 73 for our mineral reserve and resource estimates for Cigar Lake.

Uranium – projects under evaluation

Kintyre

Kintyre, which we acquired with a partner in 2008 diversifies our geographic reach and deposit types. We are the operator.

Location	Western Australia
Ownership	70%
End product	uranium concentrates
Mine type	open pit
Estimated mineral resources (our share)	38.7 million pounds (indicated) average grade U_3O_8 – 0.58% 6.7 million pounds (inferred) average grade U_3O_8 – 0.46%

Business structure

Kintyre is owned by two companies:

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

History

In August 2008, we paid $346 million (US) to acquire a 70% interest in Kintyre.

See our 2011 MD&A for more information.

Uranium – projects under evaluation

Millennium

Millennium is a uranium deposit in northern Saskatchewan that we expect will use our excess milling capacity. We are the operator.

Location	Saskatchewan, Canada
Ownership	42%
End product	uranium concentrates
Mine type	underground
Estimated mineral resources (our share)	21.4 million pounds (indicated) average grade U_3O_8 – 4.55% 7.0 million pounds (inferred) average grade U_3O_8 – 2.54%

Business structure

Millenium is owned by a joint venture of three companies:

- Cameco – 42% (operator)
- AREVA – 28%
- JCU Exploration (Canada) Co. Ltd. – 30%

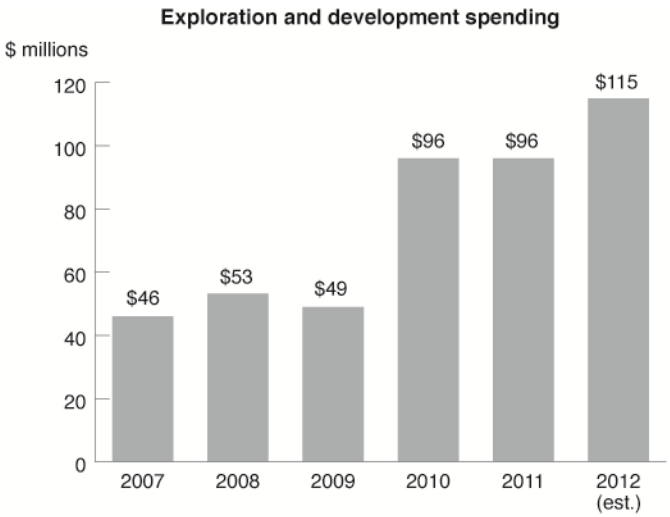
History

The Millennium deposit was discovered in 2000. The deposit was delineated through geophysical survey and drilling work between 2000 and 2007.

See our 2011 MD&A for more information.

Exploration

Exploration is key to ensuring our long-term growth and since 2007 we have more than doubled our annual investment.



We carry out exploration mainly in Canada, the US, Australia, Mongolia, Kazakhstan and South America, on a total of approximately 5 million hectares (12.5 million acres) at December 31, 2011.

Our exploration activities include brownfield exploration near our existing operations, on our projects under evaluation, on advanced exploration projects where uranium mineralization is being defined, regional exploration in new target areas, and alliances or other agreements with junior exploration companies that own potential uranium targets.

Brownfield exploration

In 2011, we spent $10 million on five brownfield exploration projects, and $38 million for resource definition at Kintyre and at Cigar Lake.

Regional exploration

In 2011, we spent about $48 million on regional exploration programs (including support costs). Saskatchewan was the largest region, followed by Australia, northern Canada, Asia, and South America.

Plans for 2012

We plan to spend approximately $115 million on uranium exploration in 2012 as part of our long-term strategy.

Brownfield exploration

We plan to spend approximately $15 million on five brownfield exploration projects in the Athabasca Basin and Australia. Our expenditures on projects under evaluation are expected to total $35 million, with the largest amounts spent on Kintyre and Inkai block 3.

Regional exploration

We plan to spend about $65 million on 49 projects worldwide, the majority of which are at drill target stage. Among the larger expenditures planned are $9 million on two adjacent projects in Nunavut, $9 million to test targets near our US operations and on our satellite properties, $4 million on the Read Lake project, $5 million on targets in South Australia, and $5 million to follow up encouraging results on the Wellington Range project in Australia**.**

Fuel services – refining

Blind River refinery

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

Location	Ontario, Canada
Ownership	100%
End product	UO_3
ISO certification	ISO 14001 certified
Licensed capacity	approved: 18 million kgU as UO_3 per year application: 24 million kgU as UO_3 per year
2011 production	13.5 million kgU of UO_3
Estimated decommissioning cost	$38.6 million (pending regulatory approval)

Markets

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

Production

Our Blind River refinery produced 13.5 million kgU of UO_3 this year. This ensured that SFL maintained its contractual inventories and Port Hope met is production requirements.

Inventory

Inventory of uranium concentrates has been declining compared to historic levels and continues to affect the facility's operating schedule. In the past, there was plenty of feedstock because customers stored large inventories at the facility. Customers now hold almost no inventory as concentrates, and provide the feedstock on a just-in-time basis. We manage production to match the conversion requirements.

Capacity

In the fall of 2008, the CNSC approved the environmental assessment required to increase the licensed production to 24 million kgU per year. In December 2008, we submitted a written request to the regulator for an amendment to the licence.

In 2011, we started the process to extend Blind River's five-year licence to a 10-year licence, and expect the process to be completed in 2012. As part of the process, we anticipate that the regulator will consider an amendment to the licence to increase production. Once we receive approval, we will be in a position to make plant modifications to increase annual capacity to 24 million kgU per year.

Fuel services – conversion and fuel manufacturing

We control about 25% of world UF_6 conversion capacity.

Port Hope conversion services

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

Location	Ontario, Canada
Ownership	100%
End product	UF_6, UO_2
ISO certification	ISO 14001 certified
Licensed capacity	12.5 million kgU as UF_6 per year 2.8 million kgU as UO_2 per year
Estimated decommissioning cost	$101.7 million (pending regulatory approval)

Cameco Fuel Manufacturing Inc. (CFM)

CFM produces fuel bundles and reactor components for Candu reactors.

Location	Ontario, Canada
Ownership	100%
End product	Candu fuel bundles and components
ISO certification	ISO 9001 certified, ISO 14001 certified
Licensed capacity	1.2 million kgU as UO_2 as finished bundles
Estimated decommissioning cost	$19.5 million (pending regulatory approval)

Springfields Fuels Ltd. (SFL)

SFL is the newest conversion facility in the world. We contract almost all of its capacity through a toll-processing agreement to 2016.

Location	Lancashire, UK
Toll-processing agreement	annual conversion of 5 million kgU as UO_3 to UF_6
Licensed capacity	6.0 million kgU as UF_6 per year

Port Hope, CFM and SFL produced a total of 14.7 million kilograms of uranium in 2011.

Conversion services

At its UO_2 plant, Port Hope produces UO_2 powder, used to make pellets for Canadian and Korean Candu reactors and blanket fuel for light water nuclear reactors.

At its UF_6 plant, Port Hope converts UO_3 to UF_6, and then ships it to enrichment plants in the United States and Europe. There, it is processed to become low enriched UF_6, which is subsequently converted to enriched UO_2 and used as reactor fuel for light water nuclear reactors.

Shutdowns

In July 2007, we discovered soil and groundwater contamination under the Port Hope UF_6 plant. We suspended production of UF_6 and conducted an investigation. We restarted the UF_6 plant in late September 2008, after significantly upgrading the liquid management structures and equipment.

In November 2008, we suspended UF_6 production a second time because we were not able to resolve a contract dispute and obtain anhydrous hydrofluoric acid (AHF) from our sole supplier on acceptable terms, and could not quickly source alternative supplies. AHF is a primary feed material for the production of UF_6. We signed an agreement with our original AHF supplier, and with two additional suppliers, and restarted production of UF_6 in June 2009.

In 2011, the UF_6 plant was shut down for a maintenance period of six weeks and the UO_2 plant was shut down for a maintenance period of five weeks.

Environment

In 2009, we completed a site-wide environmental investigation of subsurface contamination and a site-wide risk assessment to identify contaminants that could pose a potential risk to the environment. We used the results to develop an environmental management plan to mitigate potential risks. In 2010, we enhanced the plan by adding a number of groundwater retrieval wells. In 2011, we added four additional wells.

Port Hope conversion facility cleanup and modernization (Vision 2010)
The federal Minister of Environment approved the environmental assessment guidelines in 2009 for Vision 2010, our project designed to clean up the Port Hope facility to appropriate levels and modernize it. The draft environmental impact statement was submitted to the regulator in December 2010.

In 2011, work on the environmental assessment continued and public comments were provided to the CNSC. We have completed the disposition of all the comments received, and are waiting to receive approval from the Minister of Environment, which we expect will be in 2012. We will apply for an amendment to Port Hope's licence once the assessment has been approved. We expect to submit the application in late 2012 or early 2013. The preliminary engineering and project design is complete, and now we are working on basic engineering.

We have agreed to buy two parcels of land for a better site layout after Vision 2010 is complete.

10-year toll conversion agreement

In March 2005, we entered into a 10-year toll-conversion agreement with British Nuclear Fuels plc (BNFL), now Springfields Fuels Ltd. (SFL). Under the agreement, SFL has agreed to convert 5 million kilograms of UO_3 per year to UF_6. Our Blind River facility provides the UO_3, and we entered into several long-term contracts for significant volumes of conversion services provided under this agreement.

Based on the unfavourable market conditions for UF_6 conversion, we have discontinued discussions to extend our toll conversion contract with SFL beyond 2016. We are fully committed to the current contract. If market conditions improve over the next few years, we would consider resuming our discussions to extend the contract.

Fuel manufacturing

CFM's main business is making fuel bundles for Candu reactors. CFM presses UO_2 powder into pellets that are loaded into tubes, manufactured by CFM, and then assembled into fuel bundles. These bundles are ready to insert into a Candu reactor core.

Manufacturing services agreements

A substantial portion of CFM's business is the supply of fuel bundles to BPLP and BALP. We supply the UO_2 for these fuel bundles.

Electricity

Bruce Power Limited Partnership (BPLP)

BPLP leases and operates four Candu nuclear reactors that have the capacity to provide about 18% of Ontario's electricity.

Location	Ontario, Canada
Ownership	31.6%
ISO certification	ISO 14001 certified
Expected reactor life	2018 to 2021
Term of lease	2018 – right to extend for up to 25 years
Generation capacity	3,260 MW

Business structure

BPLP, an Ontario limited partnership, is owned by:

- Cameco – 31.6%
  (through our wholly owned Canadian subsidiaries, Cameco Bruce Holdings Inc. and Cameco Bruce Holdings II Inc.)
- TransCanada PipeLines Limited – 31.6%
- Ontario Municipal Employees Retirement System Trust – 31.6%
- The Power Workers' Union and The Society of Energy Professionals – 5.2%

History

2001	• We acquire a 15% limited partnership interest in BPLP and become BPLP's fuel manager. • BPLP enters into agreements with Ontario Power Generation Inc. (OPG) to lease and operate the Bruce A and B nuclear-powered units in southwestern Ontario. The initial lease period expires in 2018. BPLP can extend the lease for up to another 25 years. • OPG retains ownership of the units, and responsibility for decommissioning and waste management.
2003	• British Energy plc sells its 79.8% limited partnership interest in BPLP to a consortium of companies, including us. • After the transaction is completed, BPLP is owned: Cameco (31.6%), TransCanada PipeLines Limited (31.6%), an Ontario Municipal Employees Retirement System trust (31.6%), and The Power Workers' Union and The Society of Energy Professionals (5.2%). • We continue as BPLP's fuel manager.
2005	• BPLP is restructured and announces a new arrangement with the Ontario government to increase output of the four Bruce A reactors, including by refurbishing and restarting two Bruce A reactors that had been removed from service. BALP is formed and subleases the four Bruce A reactors from BPLP. • BPLP receives payment for the sublease, the assets it transfers to BALP under the sublease, and for Bruce A refurbishment costs already incurred. • BPLP is responsible for the overall management of the Bruce site and continues to lease and operate the four Bruce B reactors. • We maintain our 31.6% interest in BPLP and do not participate in BALP. • BPLP pays a special distribution to its limited partners. We receive $200 million.

About the generating facilities

Location

250 kilometres northwest of Toronto on Lake Huron.

Infrastructure

- four Bruce B Candu reactors: commissioned between 1984 and 1987 and have a combined net generating capacity of 3,260 megawatts
- four Bruce A Candu reactors: commissioned between 1977 and 1979 and have a combined generating capacity of 3,000 megawatts. These were removed from service from 1995 and 1998. In 2003 and 2004, two of them were returned to service, and these have a combined net generating capacity of 1,500 megawatts. The Bruce A1 and A2 units are scheduled to start again in 2012.

Average capacity factor

87% in 2011, and 91% in 2010. We expect it to be 95% in 2012.

Average capacity factor is the amount of electricity the four Bruce B reactors actually produced for sale as a percentage of the amount they were capable of producing.

Capital expenditures

$243 million in 2011. We expect capital expenditures to be $258 million in 2012 (100% basis).

Employees

4,000 BPLP employees, mostly unionized. Employee costs are apportioned between BPLP and BALP.

About Candu technology

Candu is a pressurized-heavy-water natural-uranium power reactor designed in the 1960s by a consortium of Canadian government agencies and private industry. All commercial nuclear reactors in Canada use Candu technology.

Candu reactors are different from light water reactors in several ways:

- they are fuelled by natural uranium (UO_2)
- they use deuterium oxide, or heavy water, both to slow down the fission process and to transfer heat within the reactor
- they can be refuelled without being taken offline.

Despite their ability to be refueled at full power, the Bruce Candu reactors have a higher number of outage days per year than the average for light water reactors, mainly because of the time required for maintenance and repair of pressure tubes and feeders, which light water reactors do not use.

Shutdown systems

Every Bruce reactor has two physically separate and independent systems designed to shut down the reactor within two seconds from when the system is activated. The Bruce reactors also have an emergency core coolant injection system, which activates if a pipe breaks in the reactor coolant system, and a negative pressure containment system designed to safely contain radioactive material.

Unit power ratings

Before BPLP leased the Bruce reactors, studies revealed that emergency shutdown systems might not have sufficient safety margins for certain low probability events. As a result, the CNSC began limiting the four Bruce B units to operating at 90% of maximum power.

BPLP has had some success in addressing this issue, by reordering the fuel core for example, which has improved safety margins. In 2004, the CNSC approved the uprating of the Bruce B5, 6 and 7 units to up to 93% of maximum power. The Bruce B8 unit received this rating in March 2010.

BPLP is looking at other ways to address this issue, including modifying the reactor shutdown systems and making minor modifications to the existing fuel design.

BPLP believes the technical steps it is taking are sufficient to address the issue, but future derating is possible, including small deratings to maintain operating safety margins as the units age.

Operating life

The Bruce B nuclear units were initially expected to operate for 30 years.

Based on a testing program and the actual operating history of the units to date, BPLP estimates the units will operate until:

- 2021 for the Bruce B8 unit
- 2018 to 2019 for the other three B units.

BPLP is looking at whether it can demonstrate that longer operating life is possible for the units. It has also been assessing the condition and life expectancy of several of their key components, including steam generators, fuel channels and feeder pipes.

Steam generators

As of December 31, 2010, BPLP had inspected all of the Bruce B steam generators and determined their present condition with a reasonable degree of certainty. BPLP believes that all of the inner tubes in the steam generators are likely to degrade, and that regular cleaning, repairs and internal modifications are necessary to slow down the rates of degradation and restore reliability of the units. BPLP continues to carry out a maintenance plan with the goal of keeping the steam generators operating for the expected life of the units. Current estimates of steam generator life are within the estimated operating lives of the units.

In 2003, inspections of the Bruce B8 unit identified some erosion on the support plates in three of the eight steam generators. BPLP repaired the damage and did not find any issues with the boiler tubes. It inspected the other units and did not find any similar issues, and follow-up inspections of the B8 unit did not show any further significant degradation. An inspection in 2009 confirmed that the mitigating actions appear to have been effective at stopping the erosion on these support plates.

Fuel channels

Past engineering assessments have indicated that the fuel channels will last until the end of the estimated operating lives for the Bruce B units, and current inspections support this. In 2001, BPLP began a maintenance program to reposition the support springs in the fuel channels to ensure life expectancy. The support springs in the Bruce B8 unit also need to be repositioned, but this unit has tight fitting garter springs. BPLP is developing new tooling to locate and move the springs, and is now targeting implementation in 2013.

Feeder pipes

BPLP has carried out inspections to determine the condition of the feeder pipes in the Bruce B units. Feeder pipes are part of the system that transports the heat generated by the nuclear reactor to the steam generators, using the heavy water coolant. The feeder pipes in all Candu reactors thin and degrade to varying degrees, and this is the subject of industry studies and monitoring. The Bruce B units have degraded to a lesser extent than other Candu units. This difference is due to a combination of lower operating stresses and, to a limited extent, their output rating.

BPLP inspects for pipe cracking during planned outages, but has not found any cracking to date. It increased the scale of these inspections, however, in response to the cracking of feeder pipes at two Candu plants outside Ontario, where the cracked sections were replaced and the units returned to service.

BPLP does not expect the feeder pipes to limit the life of the Bruce B units, although they do expect to have to replace some feeder pipes, and to replace and upgrade pipes for safe operation during the operating lives of the units.

Relationship with our fuel manufacturing and UO_2 businesses

Sales to BPLP and BALP are a substantial portion of our fuel manufacturing business and an important part of our UO_2 business.

Financial commitments

Our total commitment for financial assurances given on behalf of BPLP was an estimated $77 million at December 31, 2011.

These include guarantees in favour of OPG under the lease (as discussed below) and guarantees to support BPLP's power purchase agreements with customers. This last commitment is adjusted as wholesale electricity market prices change. As at December 31, 2011, our actual exposure was $11 million. See note 31 to the 2011 financial statements.

The BPLP partners have agreed that all future excess cash will be distributed on a monthly basis and that separate cash calls will be made for major capital projects.

Reliance on OPG

OPG provides services to BPLP, including some that are necessary for BPLP to comply with its CNSC operating licences.

The material long-term OPG services include:

- services related to the supply, delivery and processing of heavy water
- low level and intermediate waste storage and disposal services
- collection and storage of used fuel bundles (see page 90 for more information about nuclear waste management and decommissioning).

Lease payments to OPG

Under the lease, OPG is responsible for decommissioning liabilities. These are covered by BPLP's payments under the lease. OPG can ask for limited adjustments to the base rent every five years during the initial lease period to reflect increases in the anticipated cost of decommissioning.

In 2006, OPG completed its first five-year review and proposed an increase of $14.8 million to the annual base rate over the remaining initial term of the lease. BPLP disagreed with the proposal.

In October 2008, the matter was resolved by agreement between OPG and BPLP and the base rent was not increased. BPLP is, however, required to pay the higher base rent retroactively to when it was proposed, in any one of the following situations:

- if BPLP fails to renew the lease past 2027
- if a BPLP material event of default occurs under the lease prior to June 30, 2027
- if BPLP terminates the lease prematurely because it is no longer economically viable to operate the facility.

In 2011, OPG completed the second five-year review of the estimated decommissioning costs which is now being reviewed by the Ontario Financing Authority (OFA). The updated estimate decreased compared to the review completed in 2006 and therefore no adjustments to the base rent are anticipated. The OFA review should be completed in 2012.

In addition to base rent, BPLP pays an annual supplemental rent ($30 million) for each Bruce B operating reactor that increases with inflation. If the annual average price of electricity falls below $30 per megawatt hour, the supplemental rent decreases to $12 million per operating reactor.

In 2011, the total lease payments were $168 million.

BPLP can also terminate the lease if it is no longer economically viable to operate the facility, as long as it:

- pays a lease termination fee of $175 million
- pays the increase in base rent specified in the 2008 settlement with OPG
- meets specified ongoing operational requirements during handover

- meets specified shut-down conditions before handover.

We have guaranteed BPLP's performance of these obligations to a maximum amount of $58.3 million.

Reinforcing the system

The transmission system from the Bruce Power site will need to be reinforced once all eight units are back in service and the expected wind powered facilities in the Bruce area are operational. This involves adding a new 500 kilovolt line between Bruce Power and Milton, essentially doubling the current transmission capacity. Hydro One is planning for the transmission reinforcement to be in service in 2012.

Mineral reserves and resources

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

We have interests in a number of uranium properties. The tables in this section show our estimates of the proven and probable reserves, measured and indicated resources and inferred resources at those properties. However, only three of the uranium properties listed in those tables are material uranium properties for us: McArthur River and Inkai, which are being mined, and Cigar Lake, which is being developed.

We estimate and disclose mineral reserves and resources in five categories, using the definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum, and in accordance with Canadian *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 cim.org.

About mineral resources

Mineral resources do not have demonstrated economic viability but do have reasonable prospects for economic extraction. They fall into three categories: measured, indicated and inferred. Our reported mineral resources do not include mineral reserves.

- Measured and indicated mineral resources can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters to support evaluation of the economic viability of the deposit.
  - *measured resources*: we can confirm both geological and grade continuity to support production planning.
  - *indicated resources:* we can reasonably assume geological and grade continuity to support mine planning.
- Inferred mineral resources are estimated using limited 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 as a result of continued exploration.

About mineral reserves

Mineral reserves are the economically mineable part of measured or indicated mineral resources demonstrated by at least a preliminary feasibility study. They fall into two categories:

- *proven reserves*: the economically mineable part of a measured resource for which a preliminary feasibility study demonstrates that economic extraction is justified.
- *probable reserves*: the economically mineable part of a measured and/or indicated resource for which a preliminary feasibility study demonstrates that economic extraction can be justified.

We use current geological models, an average uranium price of $58 (US) per pound U_3O_8 (unless otherwise noted), and current or projected operating costs and mine plans to estimate our mineral reserves, allowing for dilution and mining losses. We apply our standard data verification process for every estimate.

We report mineral reserves as the quantity of contained ore supporting our mining plans, and include an estimate of the metallurgical recovery for each uranium property. Metallurgical recovery is an estimate of the amount of valuable product that can be physically recovered by the metallurgical extraction process, and is calculated by multiplying the quantity of contained metal by the estimated metallurgical recovery percentage. Our share of uranium in the mineral reserves table below is before accounting for estimated metallurgical recovery.

Qualified persons

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

McArthur River/Key Lake

- Alain G. Mainville, director, mineral resources management, Cameco
- David Bronkhorst, vice-president, Saskatchewan mining south, Cameco
- Greg Murdock, technical superintendent, McArthur River, Cameco
- Les Yesnik, general manager, Key Lake, Cameco

Cigar Lake

- Alain G. Mainville, director, mineral resources management, Cameco
- Scott Bishop, principal mine engineer, technology & innovation, Cameco
- Grant Goddard, vice-president, Saskatchewan mining north, Cameco
- Eric Paulsen, interim chief metallurgist, technology & innovation, Cameco

Inkai

- Alain G. Mainville, director, mineral resources management, Cameco
- Dave Neuburger, vice-president, international mining, Cameco
- Lawrence Reimann, manager, technical services, Cameco Resources

Important information about mineral reserve and resource estimates

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

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

- geological interpretation
- extraction plans
- commodity prices and currency exchange rates
- recovery rates
- operating and capital costs.

There is no assurance that the indicated levels of uranium will be produced, and we may have to re-estimate our mineral reserves based on actual production experience. Changes in the price of uranium, production costs or recovery rates could make it unprofitable for us to operate or develop a particular site or sites for a period of time. See page 1 for information about forward-looking information, and page 99 for a discussion of the risks that can affect our business.

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

Important information for US investors

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

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

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

Other information concerning descriptions of mineralization, mineral reserves and resources may not be comparable to information made public by companies that comply with the SEC's reporting and disclosure requirements for US domestic mining companies, including Industry Guide 7.

Mineral reserves

As at December 31, 2011 (100% basis – only the second last column shows Cameco's share)

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

		Proven			Probable			Total mineral reserves				
Property	**Mining method**	**Tonnes**	**Grade %U_3O_8**	**Content (lbs U_3O_8)**	**Tonnes**	**Grade %U_3O_8**	**Content (lbs U_3O_8)**	**Tonnes**	**Grade %U_3O_8**	**Content (lbs U_3O_8)**	**Cameco's share of content (lbs U_3O_8)**	**Estimated metallurgical recovery (%)**
McArthur River	underground	457.5	22.07	222.6	412.7	11.14	101.4	870.2	16.89	324.0	226.2	98.7
Cigar Lake	underground	233.6	22.31	114.9	303.5	15.22	101.8	537.1	18.30	216.7	108.4	98.5
Rabbit Lake	underground	91.0	0.52	1.0	1,399.9	0.75	23.0	1,490.9	0.73	24.0	24.0	96.7
Key Lake	open pit	61.9	0.52	0.7				61.9	0.52	0.7	0.6	98.7
Inkai	ISR	3,772.4	0.08	6.9	63,692.4	0.07	92.6	67,464.8	0.07	99.5	59.7	85.0
Gas Hills-Peach	ISR				999.2	0.11	2.4	999.2	0.11	2.4	2.4	72.0
North Butte-Brown Ranch	ISR				1,839.3	0.09	3.7	1,839.3	0.09	3.7	3.7	80.0
Smith Ranch-Highland	ISR	1,124.7	0.11	2.7	2,263.4	0.08	3.9	3,388.1	0.09	6.6	6.6	80.0
Crow Butte	ISR	1,282.6	0.13	3.7				1,282.6	0.13	3.7	3.7	85.0
Total		**7,023.7**	-	**352.5**	**70,910.4**	-	**328.8**	**77,934.1**	-	**681.3**	**435.3**	

Notes

ISR - in situ recovery

Estimates in the above table:

- use an average uranium price of $58.00 (US)/lb U_3O_8, except for Cigar Lake which uses an average uranium price of $61.00 (US)/lb U_3O_8
- are based on an average exchange rate of $1.00 US=$1.02 Cdn, except Cigar Lake, which is based on an average exchange rate of $1.00 US=$1.10 Cdn

Totals may not add up due to rounding.

Except for the possible Inkai permitting issue referred to below, we do not expect these mineral reserve estimates to be materially affected by metallurgical, environmental, permitting, legal, taxation, socio-economic, political, marketing or other relevant issues.

Metallurgical recovery

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

Estimates for Inkai

Our 2012 and future annual production targets and mineral reserve estimate for Inkai assume and we expect:

- Inkai will obtain the necessary government permits and approvals to produce at an annual rate of 5.2 million pounds (100% basis), including an amendment to the resource use contract
- we reach a binding agreement with Kazatomprom to finalize the terms of the memorandum of agreement
- Inkai will ramp up production to an annual rate of 5.2 million pounds (100% basis).

There is no certainty Inkai will receive these permits or approvals or we will reach a binding agreement with Kazatomprom or that Inkai will be able to ramp up production. If Inkai does not, or if the permits and approvals are delayed, Inkai may be unable to achieve its 2012 and future annual production targets and we may have to recategorize some of Inkai's mineral reserves as resources.

Changes this year

The table below shows the change in our share of mineral reserves for each property in 2011. The change was mostly the result of:

- mining and milling activities, which used 23.4 million pounds
- conversion of probable mineral reserves to proven mineral reserves from additional drilling results and/or refinements to the mining and freezing plans at McArthur River and Cigar Lake
- conversion of mineral reserves to mineral resources for portions of Gas Hills-Peach and North Butte-Brown Ranch where it was recognized that the project risks and economic assessments could be improved by modeling individual roll-fronts instead of combining them as one mineralized unit
- a requirement at Inkai to produce equal amounts from blocks 1 and 2 which resulted in an update of the life of mine production schedule and conversion of pounds from mineral reserves to mineral resources.

(thousands of pounds U_3O_8)	December 31, 2010	Throughput	Additions (deletions)	December 31, 2011
Proven mineral reserves				
Cigar Lake	36,861		20,612	57,473
Crow Butte	2,297	(905)	2,294	3,686
Inkai	5,322	(1,233)	79	4,168
Key Lake	590			590
McArthur River	122,003	(13,922)	47,325	155,406
Rabbit Lake	545	(246)	740	1,039
Smith Ranch-Highland	3,122	(1,780)	1,347	2,689
	170,740	**(18,086)**	**72,397**	**225,051**
Probable mineral reserves				
Cigar Lake	67,819		(16,869)	50,950
Crow Butte	784		(784)	0
Gas Hills - Peach	18,984		(16,553)	2,431
Inkai	67,625	(1,708)	(10,383)	55,534
McArthur River	112,177		(41,396)	70,781
North Butte – Brown Ranch	8,208		(4,488)	3,720
Rabbit Lake	25,008	(3,575)	1,601	23,034
Smith Ranch-Highland	4,904		(985)	3,919
	305,509	**(5,283)**	**(89,857)**	**210,369**
Total mineral reserves	**476,249**	**(23,369)**	**(17,460)**	**435,420**

Notes

Throughput corresponds to millfeed. The difference between 2011 millfeed and Cameco's share of 2011 pounds U_3O_8 produced is from mill recovery, mill inventory and processing low-grade material.

Additions (deletions) come from reassessing geological data, gathering data from drilling, mining and milling, and reclassifying material as either a mineral reserve or a mineral resource, as applicable.

Mineral resources

As at December 31, 2011 (100% basis – only the last column shows Cameco's share)

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

		Measured			Indicated			Total measured and indicated			
Property	**Mining method**	**Tonnes**	**Grade % U_3O_8**	**Content (lbs U_3O_8)**	**Tonnes**	**Grade % U_3O_8**	**Content (lbs U_3O_8)**	**Tonnes**	**Grade % U_3O_8**	**Content (lbs U_3O_8)**	**Cameco's share (lbs U_3O_8)**
McArthur River	underground	73.7	5.58	9.1	114.4	25.40	64.0	188.1	17.63	73.1	51.0
Cigar Lake	underground	18.9	1.68	0.7	25.5	2.71	1.5	44.4	2.25	2.2	1.1
Kintyre	open pit				4,315.4	0.58	55.2	4,315.4	0.58	55.2	38.7
Rabbit Lake	underground				362.4	0.53	4.3	362.4	0.53	4.3	4.3
Dawn Lake	open pit, underground				347.0	1.69	12.9	347.0	1.69	12.9	7.4
Millennium	underground				507.8	4.55	50.9	507.8	4.55	50.9	21.4
Phoenix	underground				89.9	17.98	35.6	89.9	17.98	35.6	10.7
Tamarack	underground				183.8	4.42	17.9	183.8	4.42	17.9	10.3
Inkai	ISR				28,613.1	0.08	48.0	28,613.1	0.08	48.0	28.8
Gas Hills-Peach	ISR	1,964.2	0.08	3.4	7,821.9	0.11	18.8	9,786.1	0.10	22.2	22.2
North Butte-Brown Ranch	ISR				7,248.9	0.08	12.3	7,248.9	0.08	12.3	12.3
Smith Ranch-Highland	ISR	2,158.3	0.11	5.1	14,778.0	0.06	18.6	16,936.3	0.06	23.7	23.7
Crow Butte	ISR				2,592.2	0.21	11.9	2,592.2	0.21	11.9	11.9
Ruby Ranch	ISR				2,215.3	0.08	4.1	2,215.3	0.08	4.1	4.1
Ruth	ISR				1,080.5	0.09	2.1	1,080.5	0.09	2.1	2.1
Shirley Basin	ISR	89.2	0.16	0.3	1,638.2	0.11	4.1	1,727.4	0.12	4.4	4.4
Total		**4,304.3**	-	**18.6**	**71,934.3**	-	**362.2**	**76,238.6**	-	**380.8**	**254.4**

Inferred (tonnes in thousands; pounds in millions)

Property	**Mining method**	**Tonnes**	**Grade % U_3O_8**	**Content (lbs U_3O_8)**	**Cameco's share (lbs U_3O_8)**
McArthur River	underground	405.2	9.67	86.4	60.3
Cigar Lake	underground	448.0	12.59	124.4	62.2
Kintyre	open pit	950.2	0.46	9.6	6.7
Rabbit Lake	underground	331.9	1.42	10.4	10.4
Millennium	underground	297.8	2.54	16.7	7.0
Phoenix	underground	23.8	7.27	3.8	1.1
Tamarack	underground	45.6	1.02	1.0	0.6
Inkai	ISR	254,696.0	0.05	255.1	153.0
Gas Hills-Peach	ISR	861.5	0.07	1.3	1.3
North Butte-Brown Ranch	ISR	594.3	0.06	0.8	0.8
Smith Ranch-Highland	ISR	6,404.0	0.05	6.6	6.6
Crow Butte	ISR	2,282.2	0.12	6.0	6.0
Ruby Ranch	ISR	56.2	0.14	0.2	0.2
Ruth	ISR	210.9	0.08	0.4	0.4
Shirley Basin	ISR	508.0	0.10	1.1	1.1
Total		**268,115.6**	-	**523.8**	**317.7**

Notes

ISR – *in situ recovery*

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

Mineral resources do not have demonstrated economic viability. Totals may not add up due to rounding.

Changes this year

The table below shows the change in our share of mineral resources for each property in 2011. The change was mostly the result of:

- first time reporting of mineral resources at Kintyre
- conversion of inferred mineral resources to indicated mineral resources at McArthur River
- conversion of mineral reserves to mineral resources at Gas-Hills Peach and Inkai
- a requirement at Inkai to produce equal amounts from blocks 1 and 2 which resulted in an update of the life of mine production schedule and transfer of pounds from mineral reserves to mineral resources
- additional drilling at Cigar Lake.

(thousands of pounds U_3O_8)	December 31, 2010	Additions (deletions)	December 31, 2011
Measured mineral resources			
Cigar Lake	193	158	351
Gas Hills – Peach	3,372		3,372
McArthur River	8,308	(1,974)	6,334
North Butte – Brown Ranch	1,366	(1,366)	0
Shirley Basin	304		304
Smith Ranch-Highland	4,928	157	5,085
	18,471	**(3,025)**	**15,446**
Indicated mineral resources			
Cigar Lake	405	356	761
Crow Butte	11,175	678	11,853
Dawn Lake	7,436		7,436
Gas Hills – Peach	2,268	16,553	18,821
Inkai	18,271	10,530	28,801
Kintyre		38,657	38,657
McArthur River	3,488	41,221	44,709
Millennium	21,369		21,369
North Butte – Brown Ranch	5,984	6,357	12,341
Phoenix	10,691		10,691
Rabbit Lake	4,002	254	4,256
Ruby Ranch	4,078		4,078
Ruth	2,097		2,097
Shirley Basin	4,085		4,085
Smith Ranch-Highland	17,647	925	18,572
Tamarack	10,288		10,288
	123,284	**115,531**	**238,815**
Total measured and indicated mineral resources	**141,755**	**112,506**	**254,261**

(thousands of pounds U_3O_8)	December 31, 2010	Additions (deletions)	December 31, 2011
Inferred mineral resources			
Cigar Lake	66,792	(4,585)	62,207
Crow Butte	5,593	371	5,964
Gas Hills – Peach	1,289		1,289
Inkai	153,049		153,049
Kintyre		6,719	6,719
McArthur River	104,835	(44,509)	60,326
Millennium	4,271	2,736	7,007
North Butte – Brown Ranch	900	(73)	827
Phoenix	1,143		1,143
Rabbit Lake	10,244	171	10,415
Ruby Ranch	167		167
Ruth	365		365
Shirley Basin	1,132		1,132
Smith Ranch-Highland	6,560	15	6,575
Tamarack	591		591
Total inferred mineral resources	**356,931**	**(39,155)**	**317,776**

Note
Additions (deletions) come from reassessing geological data, gathering data from drilling, mining and milling, and reclassifying material as either a mineral reserve or a mineral resource, as applicable.

Key assumptions, parameters and methods

McArthur River

Key assumptions

- Mineral reserves include allowances for dilution (20%) and mining recovery (95%). Mineral resources do not include allowances for either.
- Mineral resources are estimated at a minimum mineralized thickness of 1.0 metre and at a cutoff grade of 0.1% to 0.5% U_3O_8. Mineral reserves are estimated at a cut-off grade of 0.8% U_3O_8.

Key parameters

- For mineral resources estimated from surface drillholes, the uranium grade is determined from assay sample.
- For mineral resources and mineral reserves estimated from underground drillholes, grades are determined by converting radiometric probing to percentage U_3O_8 based on a correlation between radiometric counts and assay values.
- Densities are determined using formulas based on density measurements of drill core and chemical assay grades.
- Mineral reserves at McArthur River are estimated using the raisebore, boxhole and blasthole stoping methods combined with freeze curtains. The planned mining rate is to vary between 150 and 200 tonnes per day at a full mill production rate of 18.7 million pounds U_3O_8 per year based on 98.7% mill recovery.

Key methods

- Mineral resources were estimated using 3-dimensional block models. The models were created from the geological interpretation of mineralization outlines using lithology, structure and uranium grade information interpreted on vertical cross-sections and plan views. Estimates of block grade and density were obtained with ordinary kriging or inverse squared distance methods.

Cigar Lake

Key assumptions

- Phase 1 mineral resources (the eastern part of the deposit, 700 metres long by 150 metres wide) have been estimated within minimum mineralization thickness of 1.0 metres and a cut-off grade of 1% U_3O_8. The Phase 2 mineral resources (the western part of the deposit, 1,200 metres long by 100 metres wide) have been estimated with a minimum mineralization thickness of 2.5 metres, including 1.0 metres of dilution and a cut-off grade of 5.9% U_3O_8.
- Phase 1 mineral resources have been estimated with no allowance for mining dilution or mining recovery. No mining recovery was applied to Phase 2 mineral resources.
- Mineral reserves have been estimated at a cut-off grade of 2.0% U_3O_8 and a minimum mineral thickness of 1.5 metres, after measuring the diluted grade.
- Mineral reserves have been estimated with an allowance of 0.5 metres of dilution material above and below the ore zone, plus 11% external dilution at 0% U_3O_8. Mineral reserves have been estimated based on 90% mining recovery.

Key parameters

- Grades of U_3O_8 were obtained from chemical assaying of drill core and checked against radiometric probing results. In areas of lost core or missing samples, the grade was determined from probing.
- A correlation between uranium grade and density was applied where the density was not directly measured for each sample.
- Mining rates are planned to vary between 100 and 140 tonnes per day during peak production at a full mill production rate of 18 million pounds of U_3O_8 per year based on 98.5% mill recovery.

Key methods

- The geological interpretation of the orebody outline was done on section and plan views derived from drillhole information. Phase 1 mineral resources and mineral reserves were estimated using a 3-dimensional block model. Phase 2 mineral resources were estimated using a 2-dimensional block model. Ordinary kriging was used to estimate the grade and density of the blocks.

Inkai

- The estimated mineral resources and reserves at Inkai are located in blocks 1 and 2. No mineral resources or reserves have been estimated for block 3.
- The resource models follow the Kazakhstan State Committee of Mineral Reserves (GKZ) guide and use the Grade-Thickness (GT) estimation method on 2-dimensional blocks in plan. They were created by Volkovgeology, a subsidiary of Kazatomprom which is responsible for prospecting, exploration and development of uranium deposits in Kazakhstan. We performed a validation of the Kazakh reserves estimate for block 1 in 2003, and confirmed the estimated pounds of uranium to within 2.5% of the Kazakh estimate. The Kazakh estimate was also validated by an independent consulting firm in 2005. In 2007, we and an independent consulting firm verified the block 2 Kazakh mineral reserves estimate and obtained results that were consistent with the Kazakh estimate.
- Historic drilling pattern densities over blocks 1 and 2 were sufficient to satisfy the Kazakhstan State Reserve Commission requirements in defining reserves in the C2, C1 and B categories within block 1 and C2 and C1 categories within block 2.

- Our reconciliation of the Kazakh classification system to the CIM standard definitions are set out in Section 6.3 (Table 6-4) of the Inkai technical report. We believe that Kazakhstan's reserves categories B, C1 and C2 correspond respectively to NI 43-101 mineral resource categories of measured, indicated and inferred.

Key assumptions

- Dilution and mining loss are not relevant factors because Inkai uses in situ recovery as the uranium extraction method. The recovery obtained from the in situ leaching process is included in the metallurgical recovery.
- Mineral reserves have been estimated at a minimum grade-thickness of 0.130 m% U_3O_8.

Key parameters

- Grades (%U_3O_8) were obtained from downhole gamma radiometric probing of drillholes, checked against assay results and prompt-fission neutron probing results in order to account for disequilibrium.
- An average density of 1.70 t/m3 was used, based on historical and current sample measurements.
- In situ recovery production rates are planned to vary between 13,000 and 16,000 lbs U_3O_8 per day at a full mill production rate of 5.2 million lbs of U_3O_8 per year based on 85% recovery.

Key methods

- The geological interpretation of the orebody outline was done on section and plan views derived from core drillhole information.
- Mineral resources and mineral reserves were estimated with the grade-thickness method using 2-dimensional block models.

Sustainable development

Companies are under growing scrutiny for the way they conduct their businesses. There has been a significant increase in stakeholder expectations for environmentally and socially responsible business practices. We work under strict government regulation at every stage – from exploration and development, to decommissioning and reclamation.

Rather than viewing sustainable development as an "add-on" to traditional business activity, however, we see it as an integral component to the way we do business. Our aim is to fully integrate sustainable development principles and practices at each level of our operations. We are committed to complying with and moving beyond legal and other requirements, and we operate in a manner that is consistent with the ALARA principle: protecting the environment by limiting emissions and managing waste so levels are as low as reasonably achievable, accounting for social and economic factors.

We measure our progress using 23 key performance indicators that reinforce our corporate strategy and align with our four measures of success:

Safe and rewarding workplace

As we strive to foster a safe, healthy and rewarding workplace at all of our facilities, we measure key indicators such as conventional safety and radiation protection statistics, employee sentiment toward the company and employment creation.

Clean environment

We are committed to operating our business with respect and care for the local and global environment. We strive to be a leader in environmental practices and performance by complying with legal and other requirements, and moving beyond them where possible.

We are committed to integrating environmental leadership into everything we do. Part of the way we determine our progress is by measuring our impact on air, water and land near our operations as well as generation of waste and emissions.

Supportive communities

We work to build and sustain the trust of local communities by acting as a good corporate citizen. We measure the amount invested in communities through sponsorships and donations, community support through annual polling and regional employment figures.

Outstanding financial performance

To fulfill our vision, we must be competitive and secure the support of our stakeholders. We measure our financial performance based on our ability to achieve a number of strategic objectives, which are set and reviewed annually.

Our 2011 and 2012 objectives are based on, and our performance is measured against, these four measures of success. See our 2011 MD&A for our 2011 objectives, our performance against those objectives and our 2012 objectives.

Focus on environmental leadership

Our business by its nature has an impact on the environment, so environmental leadership is a key area of focus for us and a strategic priority for our operations.

Environmental leadership is reinforced by our systematic approach to safety, health, environment and quality (SHEQ) issues. We have integrated this approach into activities at our operating properties and our planning process for major projects. We also have conceptual decommissioning plans in place for all of our operating sites.

We report our performance over a three-year period. You can find this information on our website (cameco.com) and in our sustainable development report, which is also available on our website.

SHEQ management system

We introduced our environmental, safety and health policies in 1991, and have refined our approach over the years to form our overall integrated management system: the SHEQ management system.

The system includes our statement of environmental principles, and seven programs for implementing the policies and fulfilling our commitments in these areas.

Our environmental principles

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

Seven SHEQ programs

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

We benchmark our system against those used by other companies in the mining and nuclear power generation sectors. The board's safety, health and environment committee oversees our environmental policies and programs and our environmental performance on behalf of the board. Our chief executive officer is responsible for ensuring the system is implemented across the company.

Our SHEQ management system is centralized and managed at the corporate level, and we implement it corporately and at our operations.

The corporate audit program assesses our compliance with laws, regulations, permit requirements, our SHEQ related policies and programs, and how well the sites are managing requirements and reducing risk.

The SHEQ audit function is integrated with our other internal audit functions. We generally conduct a SHEQ audit every 18 to 24 months at each operating site, and every 12 months at every construction or development site.

SHEQ activity at the operations focuses on consistently applying policies and procedures, and providing help with technical issues. The sites carry out internal audits to make sure their programs meet Cameco standards and comply with regulatory requirements. The SHEQ management system is also part of our program to manage environmental risks at the operations and meet the requirements of ISO 14001. All of our operating sites are ISO 14001 certified.

In 2011, we invested:

- $99 million in environmental protection, monitoring and assessment programs, or 30% more than 2010
- $30 million in health and safety programs, or 12% less than 2010.

Spending for health and safety programs in 2012 is expected to be similar to 2011, while spending for environmental programs is expected to increase slightly.

We had 31 reportable environmental events in 2011, compared to 22 in 2010, however, there were no significant environmental incidents in 2010 and 2011.

In 2011, we achieved strong safety performance at our operations.

You can find more information about our SHEQ management system on our website.

Reducing our impact

Our internal team of specialists has been carrying out our long-term plan to reduce the impact we have on the environment. This includes monitoring and reducing our effect on air, water and land, reducing the greenhouse gases we produce and the amount of energy we consume, and managing the effects of waste.

We are investing in management systems and safety initiatives to achieve operational excellence, and this continues to improve our safety and environmental performance and operating efficiency.

We are maximizing the lifespan of our operating sites to limit the environmental impact of our operations, and are revitalizing the Key Lake mill (in operation for 29 years) and Rabbit Lake mill (in operation for 37 years).

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

We work with communities who are affected by our activities to tell them what we are doing and to receive feedback and further input, to build and sustain their trust. In Saskatchewan, we participate in the Athabasca Working Group and Northern Saskatchewan Environmental Quality Committee. In Ontario, we liaise with the community by regularly holding educational and environment-focused activities.

Land

Our 10 operating sites affect approximately 30 square kilometres of land – a relatively small area compared to what would be required to generate the same amount of energy using other technologies.

Our current mines in northern Saskatchewan are underground mines so the impact on the surface land is minimal. We use ISR mining in the U.S. and Kazakhstan to extract uranium from underground non-potable, brackish aquifers, so the impact on the surface there is also minimal.

Water

We are continually looking to improve processes and adopt new technologies to improve how we manage process water, and the effect it has on receiving water bodies.

We are reducing the concentrations of molybdenum and selenium in the effluent released from our northern Saskatchewan mines and mills because the continued release of these substances at higher levels may impact the environment.

Key Lake
The CNSC accepted our action plan in 2007 to reduce molybdenum and selenium discharges in Key Lake mill effluent, and made it a condition of the facility's operating licence. We have since reduced the concentrations of both substances in the effluent and the treatment circuit continues to perform well with consistent control of effluent concentrations.

McArthur River
We are reducing the amount of molybdenum McArthur River discharges into the environment:

- The three shafts at the site seep good quality water. We are capturing it and using it for underground mining, rather than piping more water down from the surface.
- The water quality from shaft 3 has been assessed and approved for discharge to the environment without treatment, so we discharge all excess water picked up in shaft 3 directly to the environment. This keeps the water away from underground processes, reducing the concentration of molybdenum.
- We are studying how to send excess water from the other shafts directly to the surface water treatment plant.

We expect these activities to reduce both the volume of effluent treated and the concentration of molybdenum in the effluent. As part of the most recent CNSC re-licensing, we committed to a target for lowering molybdenum and have been using a staged approach to optimize the treatment. We have implemented a number of specific activities that

have led to significantly lower concentrations and loadings and results that are consistently below this target.

Rabbit Lake
We modified the Rabbit Lake mill in 2009 and reduced discharges of molybdenum and selenium.

We installed a water treatment circuit in 2006 to reduce uranium in the discharge and, as of 2007, there is an average of 10 times less uranium being discharged than there was before 2004 calculated on an annual basis.

We continually monitor the environment to verify that the improvements we made in the mill effluent treatment process are having the planned effect of reducing the impact on the receiving environment.

Fuel Services
We discovered soil and groundwater contamination under the Port Hope UF_6 conversion plant in July 2007, and suspended operation to investigate. See *Shutdowns* on page 67 for information about the environmental effect of the incident, how we responded and the steps we took to resume operation of the plant.

We also shut down the UO_2 plant for an extended planned maintenance period in 2008, and brought floors and in-floor structures up to the new standards of the UF_6 plant. We discovered a leaking sump, which appeared to be the source of some localized contaminated ground water we found in an earlier assessment. We installed a new groundwater collection well next to the UO_2 plant to control contaminated groundwater, and reopened the plant in mid-January 2009.

Improvements to the UF_6 and UO_2 plants cost $50 million. We also spent $14 million to remediate the contaminated soil and groundwater from the Port Hope UF_6 plant.

All fuel services sites have environmental management systems that are ISO14001 registered, and CFM received its registration in 2011. Continuous improvement is a key aspect of the management systems, and both our Port Hope Conversion Facility and Blind River Refinery have successfully reduced emissions.

In our efforts to reduce the potential risks of our operations, Blind River has successfully eliminated the use of anhydrous ammonia in the refining process while still meeting the current production requirements.

United States
The ISR method we use in the US involves extracting uranium from underground non-potable aquifers by dissolving the uranium with a carbonate-based water solution and pumping it to a processing facility on the surface. After mining has been completed, an ISR wellfield must be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of use water standard.

We have 10 wellfields under restoration. See page 91 for more information.

Kazakhstan
The ISR mining method we use at Inkai uses an acid in the mining solution to extract uranium from underground non-potable aquifers. The injection and recovery system is engineered to prevent the mining solution from migrating to the aquifer above the orebody, which has water with higher purity.

Kazakhstan does not require active restoration of post-mining groundwater. After a number of decommissioning steps are taken, natural attenuation of the residual acid in the mined out horizon, as a passive form of groundwater restoration, has been accepted. Attenuation is a combination of neutralization of the groundwater residual acid content by interaction with the host rock minerals and other chemical reactions which immobilize residual groundwater contaminants in the mined-out subsoil horizon. This approach is considered acceptable because it results in water quality similar to the pre-mining baseline status.

Air

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

	2011	2010	2009
Greenhouse gas emissions of tonnes of CO_2 equivalent (CO_2e)	502,342	464,718	460,054
Greenhouse gas emissions include carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs) expressed as a carbon equivalent (CO_2e).			

The greenhouse gas emissions have been slowly increasing since 2005. Expansion of our operations has caused increases in fuel consumption, and therefore emissions, as expected.

Port Hope
We have lowered emissions of uranium and hydrofluoric acid to the air by installing new equipment and changing the operating procedures.

McArthur River

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

Cigar Lake

Cigar Lake has a large refrigeration plant that produces cold brine used for freezing certain areas of the deposit as we prepare it for mining. The plant uses refrigerants, but they are not ozone-depleting chemicals that harm the earth's atmosphere.

Key Lake
While our current emissions meet all regulatory requirements, we installed a new acid plant at Key Lake that will substantially decrease SO_2 emissions.

Rabbit Lake
Substantial upgrades to the acid plant at Rabbit Lake have resulted in an approximate 70% reduction in the mean SO_2 stack emissions (to 85 kg/day from 300 kg/day).

Waste

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

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

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

Complying with environmental regulations

Our business is required to comply with laws and regulations that are designed to protect the environment and control the management of hazardous wastes and materials. Some laws and regulations focus on environmental issues in general, and others are specifically related to mining and the nuclear sector. They change often, with requirements increasing, and existing standards are being applied more stringently. While this dynamic promotes continuous improvement, it can increase expenses and capital expenditures, or limit or delay our activities.

Government legislation and regulation in various jurisdictions establish standards for system performance, standards, objectives and guidelines for air and water quality emissions, and other design or operational requirements for the various SHEQ components of our operations and the mines that we plan to develop. We must complete an

environmental assessment before we begin developing a new mine or start processing activities, or make any significant change to a plan that has already been approved. Once we have permanently stopped mining and processing activities, we are required to decommission and reclaim the operating site to the satisfaction of the regulator, and we may be required to actively manage former mining properties for many years.

Canada

Not only is there ongoing regulatory oversight by the Canadian Nuclear Safety Commission (CNSC), the Saskatchewan Ministry of the Environment, the Ontario Ministry of the Environment, and Environment Canada, but there is also public scrutiny of the impact our operations have on the environment.

The CNSC, an independent regulatory authority established by the federal government under the *Canadian Nuclear Safety and Control Act* (NSCA), is our main federal regulator in Canada. It regulates our compliance with the NSCA and is the federal lead for environmental assessments required to be carried out under the *Canadian Environmental Assessment Act*.

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

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

Generally, the environmental assessment process takes more than two years to complete. Our plans to expand production or build new mines in Saskatchewan are subject to this process, and we currently have a number of environmental assessments underway, including comprehensive studies and screening level assessments. In certain cases, a review panel may be appointed and public hearings held.

Over the past few years, CNSC audits of our operations have focused on the following SHEQ programs:

- radiation protection
- environmental monitoring
- fire protection
- operational quality assurance
- organization and management systems effectiveness
- transportation systems
- geotechnical monitoring
- training
- ventilation systems

Improving our environmental performance is challenging, and we have several initiatives underway:

- dealing with more stringent controls on fugitive uranium emissions from ventilation systems at fuel services facilities
- optimizing performance of our facilities to reduce molybdenum and selenium loadings
- lessening the impacts our facilities have on groundwater.

Many of these initiatives have required additional environmental studies near the operations, and we expect that we will have to do more, including environmental assessments.

It can take a significant amount of time for regulators to make requested changes to a licence or grant requested approval because the proposal may require an environmental assessment or an extensive review of supporting technical data, management programs and procedures. We are improving the quality of our proposals and submissions and have introduced a number of programs to ensure we continue to comply with regulatory requirements, but this has also increased our capital expenditures and our operating costs.

As our SHEQ management system matures, regulators review our programs more often and recommend ways to improve our SHEQ performance. These recommendations are generally procedural and do not involve large capital costs, although systems applications can be significant and result in higher operating costs.

We believe that regulatory expectations of the CNSC and other federal and provincial regulators will continue to evolve, and lead to changes to both requirements and the regulatory framework. This will likely increase our expenses.

United States

Our ISR operations in the US have to meet federal, state and local regulations governing air emissions, water discharges, handling and disposal of hazardous materials and site reclamation, among other things.

Mining activities have to meet comprehensive environmental regulations from the US Nuclear Regulatory Commission (NRC), Bureau of Land Management, Environmental Protection Agency and state environmental agencies. The process of obtaining mine permits and licences generally takes several years, and involves environmental assessment reports, public hearings and comments. We have the permits and licences for the US operations that we need to meet our 2012 production plans.

Our plans to expand our US ISR production, which includes adding satellite facilities to our operating mines in Wyoming and Nebraska, are subject to an environmental assessment process that can take several years.

After mining is complete, ISR wellfields have to be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of use water standard. Restoration of Crow Butte wellfields is regulated by the Nebraska Department of Environmental Quality and the NRC. Restoration of Smith Ranch-Highland wellfields is regulated by the Wyoming Department of Environmental Quality and the NRC. See page 91 for the status of wellfield restoration and regulatory approvals.

Kazakhstan

In its resource use contract with the Kazakhstan government, Inkai committed to conducting its operations according to good international mining practices. It complies with the environmental requirements of Kazakhstan legislation and regulations, and, as an industrial company, it must also reduce, control or eliminate various kinds of pollution and protect natural resources. Inkai is required to submit annual reports on pollution levels to the Kazakhstan environmental, tax and statistics authorities. The authorities conduct tests to validate Inkai's results.

Environmental protection legislation in Kazakhstan has evolved rapidly, especially in recent years. As the subsoil use sector has evolved, there has been a trend towards greater regulation, heightened enforcement and greater liability for non-compliance. The most significant development was the adoption of the *Ecological Code*, dated January 9, 2007 and in effect as of February 3, 2007. This code replaced the three main laws that had related to environmental protection. Amendments were made to the code in December 2011 that include more stringent environmental protection regulations, particularly relating to the control of greenhouse gas emissions, obtaining environmental permits, state monitoring requirements and other similar matters.

Inkai is required to comply with environmental requirements during all stages of the project, and must develop an environmental impact assessment for examination by a state environmental expert before making any legal, organizational or economic decisions that could have an effect on the environment and public health. Plans to double production at blocks 1 and 2 and to develop block 3 are subject to this environmental impact assessment process.

Under the *Ecological Code*, Inkai needs an environmental permit to operate. The permit certifies the holder's right to discharge emissions into the environment, provided that it introduces the "best available technologies" and complies with the technical guidelines in the code. Inkai has a permit for environmental emissions and discharges, valid until December 2013, and an emissions permit for drilling activities, valid until December 2012. It also holds the required permits under the *Water Code.*

Government authorities and the courts enforce compliance with these permits, and violations can result in the imposition of administrative, civil or criminal penalties, the suspension or stopping of operations, orders to pay compensation, orders to remedy the effects of violations and orders to take preventive steps against possible future violations. In certain situations, the issuing authority may suspend or revoke the permits.

Inkai has environmental insurance, as required by the *Ecological Code* and the resource use contract. Inkai also has voluntary civil liability insurance for environment protection.

Nuclear waste management and decommissioning

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

Estimating decommissioning and reclamation costs

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

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

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

At the end of 2011, our estimate of total decommissioning and reclamation costs was $577 million. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $509 million at the end of 2011 (the present value of the $577 million). Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation as letters of credit to regulatory authorities, as required. We had a total of $664 million in letters of credit supporting our reclamation liabilities at the end of 2011. Since 2001, all of our North American operations have had letters of credit in place that provide financial assurance in connection with our preliminary plans for decommissioning for the sites.

Please also see note 19 to the 2011 financial statements for our estimate of decommissioning and reclamation costs and related letters of credit.

Canada

Decommissioning estimates
(100% basis)

McArthur River	$36.1 million
Rabbit Lake	$105.2 million
Key Lake	$120.7 million
Cigar Lake	$27.7 million

These estimates have been reviewed and accepted by the CNSC. We, along with our joint venture partners, have filed with the Saskatchewan government letters of credit as financial assurance for all four operations to match these estimates.

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

Decommissioning estimates
(100% basis)

Port Hope	$101.7 million
Blind River	$38.6 million
CFM	$19.5 million

We are currently in the process of renewing our licences for Port Hope, Blind River and CFM and are awaiting regulatory approval of our new decommissioning estimates for these sites. Once the new decommissioning estimates are approved, we will increase the letters of credit to be filed with the regulator as financial assurance for them.

Bruce Power

Operating the Bruce Power nuclear units generates three kinds of radioactive waste:

- used nuclear fuel bundles (*high-level radioactive waste*)
- other material that has come in close contact with the reactors or is reactor equipment such as pressure tubes. This material is less radioactive than used nuclear fuel bundles (*intermediate-level radioactive waste*)
- material used in operating the station (*low-level radioactive waste*).

High-level radioactive waste

Used nuclear fuel bundles from the Bruce reactors are temporarily stored in water-filled pools (called *wet bays*) at the Bruce Power nuclear stations for a cooling-off period of at least 10 years so their radioactivity substantially decreases. The bundles are then transferred to above-ground concrete canisters at a dry storage facility constructed by OPG. The facility is located on the part of the site not leased to BPLP. OPG started transferring the used nuclear bundles to its facility in 2003.

BPLP is responsible for managing any used nuclear fuel bundles stored in the Bruce B wet bays although OPG retains title to all used nuclear fuel bundles stored in the wet bays before May 11, 2001. OPG also assumes:

- title to any used nuclear fuel bundles that are discharged from the Bruce reactors during the term of the lease
- the cost of, and responsibility for, disposing of these nuclear fuel bundles. It also receives a fee, paid as supplemental rent under the lease, for this disposal.

Intermediate and low-level radioactive waste

OPG has also agreed to take title to, store and dispose of all of BPLP's low and intermediate-level radioactive waste at OPG's radioactive waste management facility at the Bruce site during the term of the lease. OPG retains title to all low and intermediate-level radioactive waste generated before May 11, 2001.

Decommissioning

Under the lease and as owner of the Bruce nuclear plants, OPG is responsible for:

- decommissioning the eight units
- funding the decommissioning and meeting any other related requirements imposed by the CNSC
- managing the radioactive waste associated with decommissioning the Bruce nuclear plants.

Historical waste

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

Our liability includes:

- the first $2 million of all costs and expenses related to historical waste and the historical facilities, including costs and expenses relating to any claim arising out of or related to historical waste and decommissioning or reclamation costs and expenses related to historical waste and the historical facilities
- 23/98ths of the next $98 million of these costs.

Canada Eldor Inc., the entity established by the federal government to assume the historical liabilities and obligations of Eldorado Nuclear Limited, retained liability for the balance of these costs up to $100 million, and for all of these costs above $100 million, effectively capping our liability with respect to these costs at $25 million.

Principles of understanding
In October 2000, the government of Canada and certain communities near and including Port Hope announced they had signed a framework for the development of an agreement for the clean-up, storage and long-term management of certain historical waste (the principles of understanding).

In June 2001, the federal government announced that it had signed an agreement to invest approximately $260 million over 10 years to carry out the work.

In March 2004, we reached an agreement to transfer two facilities to the government of Canada: the Port Granby Waste Management Facility and Welcome Waste Management Facility. Atomic Energy Canada Limited (AECL), which indirectly owned these waste sites before 1988 through its ownership of Eldorado Nuclear Limited, is the licensee.

As part of this transaction, the federal government agreed to accept approximately 150,000 cubic metres of low-level radioactive waste from us at no charge. It also agreed to assume all liability for the waste at the two sites, as long as we met our obligation to contribute the balance of the $25 million cap respecting costs and expenses related to historical waste and the historical facilities remaining upon the transfer of the final waste facility. We have already recognized this $25 million liability, but at the end of 2011, only $7.17 million of it had been spent by Cameco.

Port Hope Area Initiative
In July 2002, the federal government released the scoping document for the environmental assessment of the Port Hope Area Initiative, which described two projects to manage low-level radioactive waste in the Port Hope area for the long term: the Port Granby project and Port Hope project, which includes historical waste at the Welcome Waste Management Facility. Both projects have completed the environmental assessment process.

In September 2009, after a one-day public hearing, the CNSC announced a decision to issue a Waste Nuclear Substance Licence to AECL for the Welcome Waste Management Facility, valid as of the date of land transfer. Transfer of this facility to the federal government was completed on March 31, 2010. In November 2011, the CNSC announced the decision to issue a Waste Nuclear Substance Licence to AECL for the Port Granby Waste Management Facility, valid as of the date of the land transfer, which is anticipated to occur in 2012.

Recycling uranium byproducts

We have an agreement with Denison Mines Corporation to process certain uranium-bearing byproducts from Blind River and Port Hope at the White Mesa mill in Blanding, Utah. While this arrangement addresses existing inventory and current recycling requirements, we are considering other outlets.

For example, in 2001, we tested recycling the byproducts at our Key Lake mill, and in 2002 submitted a proposal to federal and provincial regulatory authorities for approval to proceed. We received regulatory approval from the Saskatchewan government in 2003, and were advised by the CNSC in 2011 that this project can proceed.

United States

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

It is difficult for us to estimate final timing for restoring wellfields due to the uncertainty in timing for receiving regulatory approval.

Crow Butte

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

Our estimated cost of decommissioning the property is $35.6 million (US). We have provided the State of Nebraska with a $35.4 million (US) letter of credit as security for decommissioning the property and are in the process of receiving regulatory approval to increase the letter of credit to $35.6 million (US), in accordance with the State of Nebraska's requirements.

Smith Ranch-Highland

Restoration of Smith Ranch-Highland wellfields is regulated by the Wyoming Department of Environmental Quality and NRC. There are five wellfields being restored at Smith Ranch-Highland, and two wellfields (mine units A and B) that have been fully restored.

The restoration of mine unit B has been approved by the Wyoming Department of Environmental Quality, and we are waiting for approval from the NRC. We have restored the groundwater at mine unit A to pre-mining quality standards, and continue to monitor the area's environmental performance. We have received regulatory approval for the restoration at mine unit A.

Our estimated cost of decommissioning the property is $168 million (US). We have provided the State of Wyoming with $212.7 million (US) in letters of credit as security for decommissioning the property, in accordance with the State of Wyoming's requirements.

Kazakhstan

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

Under the resource use contract, Inkai must submit a plan for decommissioning the mining facility to the government six months before mining activities are complete. Inkai has established a preliminary plan and an estimate of total decommissioning costs of $11 million (US). It updates the plan every five years, or when there is a significant change at the operation that could affect decommissioning estimates.

Groundwater is not actively restored post-mining in Kazakhstan. See page 85 for additional details.

The regulatory environment

This section, and the section *Complying with environmental regulations* starting on page 86, discuss some of the more significant government controls and regulations that have a material effect on our business. A significant part of our economic value depends on our ability to comply with the extensive and complex laws and regulations that govern our activities. We are not aware of any proposed legislation or changes to existing legislation that could have a material effect on our business.

International treaty on the non-proliferation of nuclear weapons

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is an international treaty that was established in 1970. It has three objectives:

- to prevent the spread of nuclear weapons and weapons technology
- to foster the peaceful uses of nuclear energy
- to further the goal of achieving general and complete disarmament.

The NPT establishes a safeguards system under the responsibility of the International Atomic Energy Agency. Almost all countries are signatories to the NPT, including Canada, the US, the United Kingdom and France. We are therefore subject to the NPT and comply with the International Atomic Energy Agency's requirements.

Industry regulation and permits

Canada

Our Canadian operations have regulatory obligations to both the federal and provincial governments. There are five main regulatory agencies that issue licences and approvals:

- CNSC (federal)
- Fisheries and Oceans Canada (federal)
- Transport Canada (federal)
- Saskatchewan Ministry of Environment
- Ontario Ministry of Environment.

Environment Canada (federal) is also a main regulatory agency, but does not issue licences and approvals.

Uranium industry regulation

The government of Canada recognizes the special importance of the uranium industry to Canada's national interest, and regulates the industry through legislation and regulations, and exerts additional control through government policy.

Federal legislation applies to any work or undertaking in Canada for the development, production or use of nuclear energy or for the mining, production, refinement, conversion, enrichment, processing, reprocessing, possession or use of a nuclear substance. Federal policy requires that any property or plant used for any of these purposes must be legally and beneficially owned by a company incorporated in Canada.

Mine ownership restrictions

The federal government has instituted a policy that restricts ownership of Canadian uranium mining properties to:

- a minimum of 51% ownership by residents
- a basic maximum limit of 49% ownership by non-residents of uranium properties at the first stage of production.

The government may grant exceptions. For example, resident ownership may be less than 51% if the property is Canadian-controlled. Exceptions will only be granted in cases where it is demonstrated that Canadian partners cannot be found, and it must receive Cabinet approval.

The government issued a letter to the Canadian uranium industry on December 23, 1987, outlining the details of this

ownership policy. On March 3, 2010, the government announced its intention to liberalize the foreign investment restrictions on Canada's uranium mining sector to "ensure that unnecessary regulation does not inhibit the growth of Canada's uranium mining industry by unduly restricting foreign investment". After striking an expert panel to study the issue and soliciting feedback from various stakeholders, the federal government has more recently stated in October 2011 that it will not be changing the policy at this time.

Cameco ownership restriction
We are subject to ownership restrictions under the *Eldorado Nuclear Limited Reorganization and Divestiture Act*, which restricts the issue, transfer and ownership, including joint ownership, of Cameco shares to prevent both residents and non-residents of Canada from owning or controlling more than a certain percentage of shares. See pages 122 and 123 for more information.

Industry governance

The *Canadian Nuclear Safety and Control Act* (NSCA) governs the control of the mining, extraction, use and export of uranium in Canada. It is a federal statute, authorizing the CNSC to make regulations governing all aspects of the development and application of nuclear energy, including uranium mining, milling, conversion, fabrication and transportation. It grants the CNSC licensing authority for all nuclear activities in Canada. A person may only possess or dispose of nuclear substances and build, operate and decommission its nuclear facilities according to the terms and conditions of a CNSC licence. Licensees must satisfy specific conditions of the licence in order to maintain the right to operate their nuclear facilities.

The NSCA emphasizes the importance of environmental as well as health and safety matters, and requires licence applicants and licensees to have adequate provisions for protection.

Regulations made under the NSCA include provisions for dealing with the licence requirements of facilities, radiation protection, physical security for all nuclear facilities and the transport of radioactive materials. The CNSC has also issued regulatory information and guidance documents to assist licensees in complying with regulatory requirements such as decommissioning, emergency planning, and optimizing radiation protection measures.

All of our Canadian operations are governed primarily by licences granted by the CNSC and are subject to all federal statutes and regulations that apply to us, and all the laws that generally apply in the province where the operation is located, unless there is a conflict with the terms and conditions of the licence or the federal laws that apply to us.

Uranium export

We must secure export licences and export permits from the CNSC and the Department of Foreign Affairs and International Trade in order to export our uranium. In some cases, such as with China, we also need government agreements and bilateral arrangements.

Land tenure

Most of our uranium reserves and resources are located in the province of Saskatchewan:

- a *mineral claim* from the province gives us the right to explore for minerals (other government approvals are required to carry out surface exploration)
- a *crown lease* with the province gives us the right to mine the minerals on the property
- a *surface lease* with the province gives us the right to use the land for surface facilities and mine shafts while mining and reclaiming the land.

A mineral claim has a term of two years, with the right to renew for successive one-year periods. Generally, the holder has to spend a certain amount on exploration to keep the mineral claim in good standing. If we spend more than the amount required, the extra amount can be applied to future years.

A holder of a mineral claim in good standing has the right to convert it into a crown lease. A crown lease is for 10 years, with a right to renew for additional 10-year terms. The lessee must spend a certain amount on work during each year of the crown lease. The lease cannot be terminated unless the lessee defaults on any terms of the lease, or under any provisions of *The Crown Minerals Act* (Saskatchewan) or regulations under it, including any prescribed environmental concerns. Crown leases can be amended unilaterally by the lessor by an amendment to *The Crown*

Minerals Act (Saskatchewan) or *The Mineral Disposition Regulations, 1986* (Saskatchewan).

A surface lease can be for up to 33 years, as necessary for operating the mine and reclaiming the land. The province also uses surface leases to specify other requirements relating to environmental and radiation protection as well as socioeconomic objectives.

Electricity regulation

BPLP's operations are heavily regulated. The CNSC regulates the Bruce nuclear generation stations through its powers under the NSCA (see *Uranium industry regulation* above). It also monitors the safety performance of the Bruce nuclear generating stations.

Licences issued by the CNSC stipulate that BPLP must report regularly on its operations. BPLP is also regulated by the *Nuclear Liability Act* (as discussed below), as well as other general legislation.

Licence renewals
BPLP operates the Bruce B nuclear reactors under a CNSC licence issued to BPLP's general partner, Bruce Power Inc. In 2009, CNSC renewed the Bruce B operating licence for a term through October 31, 2014. BPLP was not required to provide financial assurances under the Bruce B operating licence because the CNSC determined that the preliminary decommissioning plan and the financial assurances which BPLP provides to OPG under its lease with OPG are adequate.

We are indemnified by BALP for any calls on the assurances resulting from operation of the Bruce A units.

Liability insurance
The *Nuclear Liability Act* requires operators of nuclear generating facilities to purchase specific amounts of nuclear liability insurance from the Nuclear Liability Association of Canada. The *Nuclear Liability Act* imposes liability and currently requires the operator of nuclear stations to maintain $75 million of liability insurance for each of its nuclear stations.

The *Nuclear Liability Act* has two key parts:

- Under *Part I*, an operator is strictly liable for any damage to public property or personal injury arising from a nuclear incident (as defined in the *Nuclear Liability Act*), other than damage resulting from sabotage or acts of war. If the Governor in Council is of the opinion that an operator's liability for a nuclear incident could be higher than $75 million, or it would be in the public interest to provide special measures for compensation, the Governor in Council may proclaim Part II in effect.
- Under *Part II*, an operator is liable to the government of Canada for amounts up to $75 million. The Governor in Council may authorize the federal government to pay funds for claims exceeding that amount.

The federal government had previously introduced legislation in the House of Commons that would significantly change the *Nuclear Liability Act*. It included, among other things, requirements for the operator to maintain $650 million of liability insurance for each of its nuclear stations. While not currently before the House of Commons, it is expected that this legislation will be reintroduced. If it becomes law, it will result in a significant increase in the cost and amount of insurance coverage BPLP must obtain.

Ontario

BPLP sells electricity into the wholesale spot market and contract market.

The Ontario regulatory framework has an impact on BPLP's marketing of electricity, particularly the wholesale market where BPLP sells most of its production. The Ontario government took steps in April 2005 to mitigate the impact of higher electricity prices on the province's large industrial and commercial customers by regulating the price of electricity produced by OPG's base load nuclear and hydro assets. This affected approximately 55,000 large industrial and commercial customers who consume more than 250,000 kilowatt hours per year. In December 2004, OPA was established to ensure reliability of supply in the province. Since 2005, OPA has procured more than 20,000 MW of electricity supply capacity and more than half of the capacity is subject to fixed-rate contract prices.

BPLP expects these actions to depress the wholesale contract market, which is unregulated.

United States

Uranium industry regulation

In the US, uranium recovery is regulated primarily by the NRC according to the *Atomic Energy Act of 1954*, as amended. Its primary function is to:

- ensure employees, the public and the environment are protected from radioactive materials
- regulate most aspects of the uranium recovery process.

The NRC's regulations for uranium recovery facilities are codified in *Title 10 of the Code of Federal Regulations* (10 CFR). It issues Domestic Source Material Licences under 10 CFR, Part 40. The *National Environmental Policy Act* (NEPA) governs the review of licence applications, which is implemented through 10 CFR, Part 51.

Wyoming

The uranium recovery industry is also regulated by the Wyoming Department of Environmental Quality, the Land Quality Division according to the *Wyoming Environmental Quality Act* (WEQA) and the *Land Quality Division Non-Coal Rules and Regulations* under the WEQA. According to the state act, the Wyoming Department of Environmental Quality issues a permit to mine. The Land Quality Division administers the permit.

The state also administers a number of Environmental Protection Agency (EPA) programs under the *Clean Air Act* and the *Clean Water Act.* Some of the programs, like the *Underground Injection Control Regulations*, are incorporated in the *Land Quality Division Non-Coal Rules and Regulations*. Wyoming currently requires wellfield decommissioning to the standard of pre-mining use.

Nebraska

The uranium recovery industry is regulated by the NRC, and the Nebraska Department of Environmental Quality according to the *Nebraska Environmental Protection Act*. The Nebraska Department of Environmental Quality issues a permit to mine. The state requires wellfield groundwater be restored to the class of use water standard.

At Smith Ranch-Highland and Crow Butte, safety is regulated by the federal Occupational Safety and Health Administration.

Other governmental agencies are also involved in the regulation of the uranium recovery industry.

The NRC also regulates the export of uranium from the US and the transport of nuclear materials within the US. It does not review or approve specific sales contracts. It also grants export licences to ship uranium outside the US.

Land tenure

Our uranium reserves and resources in the US are held by subsidiaries that are located in Wyoming and Nebraska. The right to mine or develop minerals is acquired either by leases from the owners (private parties or the state) or mining claims located on property owned by the US federal government. Our subsidiaries acquire surface leases that allow them to install wellfields and conduct ISR mining.

Kazakhstan

See *Kazakhstan government and legislation* on page 41.

Royalties and taxes

Canadian royalties

We pay royalties to the province of Saskatchewan under the terms of Part III of the *Crown Mineral Royalty Schedule*, 1986 (Saskatchewan), as amended. The royalty applies to the sale of all uranium extracted from orebodies in the province.

The schedule includes two kinds of royalties:

- *basic royalty*: 5% of gross sales of uranium, less the Saskatchewan resource credit (1% of the gross sales of uranium)

- *tiered royalty*: an additional percentage of gross sales of uranium, when the realized sales price of uranium (after deducting capital allowances) is higher than the sales prices listed in the schedule.

We claimed all of our capital allowances in 2007 and started to pay tiered royalties that year. We will be eligible for additional capital allowances once Cigar Lake begins production, resulting in significantly reduced tiered royalties that fiscal year and the year following at which time the allowances are expected to be fully exhausted.

As a resource corporation in Saskatchewan, we pay a corporate resource surcharge of 3.0% of the value of resource sales.

Canadian income taxes

We are subject to federal income tax and provincial taxes in Saskatchewan and Ontario. Current income tax recovery for 2011 was $7.9 million.

Royalties are fully deductible for income tax purposes. For Ontario tax purposes, we are charged an additional tax (at normal Ontario corporate tax rates) if the royalty deduction exceeds a notional Ontario resource allowance. Our Ontario fuel services operations and BPLP are eligible for a manufacturing and processing tax credit.

Since 2008, Canada Revenue Agency (CRA) has disputed the transfer pricing methodology we used for certain uranium sale and purchase agreements and issued notices of reassessment for our 2003 through 2006 tax returns. We believe it is likely that CRA will reassess our tax returns for 2007 through 2011 on a similar basis. Our view is that CRA is incorrect, and we are contesting its position. As a result, we are pursuing our appeal rights under the *Income Tax Act*. However, to reflect the uncertainties of CRA's appeals process and litigation we have provided $54 million for uncertain tax positions for 2003 through 2011. We believe that the ultimate resolution of this matter will not be material to our financial position, results of operations or liquidity over the period. However, an unfavourable outcome for the years 2003 to 2011 could be material to our financial position, results of operations or cash flows in the year(s) of resolution. See note 24 to the financial statements.

US taxes

Our subsidiaries in Wyoming and Nebraska pay severance taxes, property taxes and Ad Valorem taxes in those states. They paid $5.6 million (US) in taxes in 2011.

Our US subsidiaries are subject to US federal and state income tax. They may also be subject to the Alternative Minimum Tax (AMT) at a rate of 20%. We can carry forward AMT paid in prior years indefinitely, and apply it as credit against future regular income taxes. Current income tax expense for 2011 was $0.1 million (US).

Kazakhstan taxes

The resource use contract lists the taxes, duties, fees, royalties and other governmental charges Inkai has to pay.

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

Tax stabilization eliminated
In October 2009, at the request of the Kazakhstan Ministry of Energy and Mineral Resources, Inkai signed an amendment to the resource use contract to adopt the new tax code, eliminating the tax stabilization provision. We do not expect the new tax code to have a material impact on Inkai at this time, but eliminating the tax stabilization provision could be material in the future. See pages 40 and 41 for more information about the resource use contract.

Corporate income tax rate
Under the new tax code, Inkai is subject to corporate income tax at a rate of 20%.

Mineral extraction tax
The tax code includes a *Tax on Production of Useful Minerals*, a new mineral extraction tax replacing the previous royalty. The mineral extraction tax must be paid on each type of mineral and certain other substances that are extracted. Starting from January 1, 2011**,** the rate used to calculate the mineral extraction tax on uranium is 22%.

Previously, Inkai would pay royalties that were calculated on a graduated scale, based on the sales price of production each year.

Payment for commercial discovery

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

Excess profits tax

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

Risks that can affect our business

There are risks in every business.

The nature of *our* business means we face many kinds of risks and hazards – some that relate to the nuclear energy industry in general, and others that apply to specific properties, operations or planned operations. These risks could have a significant impact on our business, earnings, cash flows, financial condition, results of operations or prospects.

The following section describes the risks that are most material to our business. This is not, however, a complete list of the potential risks we face – there may be others we are not aware of, or risks we feel are not material today that could become material in the future. We have comprehensive systems and procedures in place to manage these risks, but there is no assurance that we will be successful in preventing the harm that any of these risks could cause.

Please also see the risk discussion in our 2011 MD&A.

Types of risk

1 – Operational risks

General operating risks and hazards

We are subject to a number of operational risks and hazards, many of which are beyond our control.

These risks and hazards include:

- environmental damage (including hazardous emissions from our refinery and conversion facilities, like a release of UF_6 or a leak of anhydrous hydrogen fluoride used in the UF_6 conversion process)
- industrial and transportation accidents, which may involve radioactive or other hazardous materials
- labour shortages, disputes or strikes
- cost increases for contracted or purchased materials, supplies and services
- shortages of required equipment, materials and supplies (including the availability of acid for Inkai's operations in Kazakhstan and anhydrous hydrofluoric acid at our conversion facilities)
- transportation disruptions
- electrical power interruptions
- equipment failures
- catastrophic accident
- fires
- blockades or other acts of social or political activism
- regulatory constraints ad non-compliance with laws and licences
- natural phenomena, such as inclement weather conditions, floods and earthquakes
- unusual or unexpected geological or hydrological conditions
- underground floods
- ground movement or cave ins
- tailings pipeline or dam failures
- adverse mining conditions
- technological failure of mining methods.

There is no assurance that any of the above risks will not result in:

- damage to or destruction of our properties and facilities located on these properties
- personal injury or death
- environmental damage
- delays in, interruptions of, or decrease in production at our mines, our mills, our refining, conversion or fuel manufacturing facilities, our exploration or development activities or transportation of our products
- interruptions or decreases in electricity generation from BPLP
- costs, expenses or monetary losses
- legal liability
- adverse government action.

Any of these events could result in one or more of our operations becoming unprofitable, cause us not to receive an adequate return on invested capital, or have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Insurance coverage

We buy insurance to cover losses or liabilities arising from some of the operating risks and hazards listed above. We believe we have a reasonable amount of coverage for the risks we choose to insure against. There is no assurance, however, that this coverage will be adequate in all circumstances, that it will continue to be available, that premiums will be economically feasible, or that we will maintain this coverage. Like other nuclear energy and mining companies, we do not have insurance coverage for certain environmental losses or liabilities and other risks, either because it is not available, or because it cannot be purchased at a reasonable cost.

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

Flooding at our Saskatchewan mines

All of our operating mines in Saskatchewan have had water inflows, and our Cigar Lake development project in Saskatchewan has flooded in the past.

McArthur River

The sandstone that overlays the basement rocks of the McArthur River deposit contains large volumes of water at significant pressure. Ground freezing at McArthur River generally prevents water from flowing into the area being mined, but there are technical challenges with the groundwater and rock properties.

We temporarily suspended production at our McArthur River mine in April 2003 because increased water inflow from an area of collapsed rock in a new development area began to flood portions of the mine. This caused a major setback in the development of new mining zones.

Cigar Lake

The Cigar Lake deposit has hydro-geological characteristics and technical challenges that are similar to those at McArthur River. We have had three water inflows at Cigar Lake since 2006 (please see page 56 for details).

These water inflows have caused:

- a significant delay in development and production at the property
- a significant increase in capital costs
- the need to notify many of our customers of the interruption in planned uranium supply.

Rabbit Lake

We temporarily reduced our underground activities at Rabbit Lake in November 2007, because there was an increase in water flow from a mining area while an equipment upgrade was limiting surface water-handling system

capacity. Rabbit Lake resumed normal mining operations in late December 2007, after the source of the water inflow was plugged.

There is no guarantee that there will not be water inflows at McArthur River, Cigar Lake or Rabbit Lake in the future. A water inflow could have a material and adverse effect on us, including:

- significant delays or interruptions in production or lower production
- significant delays or interruptions in mine development or remediation activities
- loss of mineral reserves
- a material increase in capital or operating costs.

It could also have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects. The degree of impact depends on the magnitude, location and timing of the flood or water inflow. Floods and water inflows are generally not insurable.

Technical challenges at Cigar Lake and McArthur River

The unique nature of the deposits at McArthur River and Cigar Lake pose many technical challenges, including groundwater management, unstable rock properties, radiation protection, mining method uncertainty, ore-handling and transport and other mining-related challenges.

The jet boring mining method is new to the uranium mining industry and was developed and adapted specifically for the Cigar Lake deposit. Although we have successfully demonstrated the jet boring mining method in trials, this method has not been proven at full production. Test mining trials have been completed on a limited number of cavities that may not be representative of the deposit as a whole. As we ramp up production, there may be some technical challenges, which could affect our production plans, including, but not limited to variable or unanticipated ground conditions, ground movement and cave ins, water inflows and variable dilution, recovery values and mining productivity. Even though enhancements have been made to the design of the jet boring system units, there is a risk that the rampup to the full production rate at Cigar Lake may not be achieved on a sustained and consistent basis.

If we are unable to resolve any of these technical challenges, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Tailings management

Our Key Lake and Rabbit Lake mills produce tailings. Managing these tailings is integral to uranium production.

Key Lake

The Key Lake mill deposits tailings from processing McArthur River ore into the Deilmann TMF. In February 2009, we received regulatory approval to deposit the tailings at a higher elevation at that facility. This gives us about six years of licensed capacity at current production rates, assuming we experience only minor losses in storage capacity because of sloughing from the pit walls. We also completed prefeasibility work in 2009, to assess our options for additional long-term tailings storage. Work is well underway on the environmental assessment for the Key Lake extension project to support our application for regulatory approval to deposit tailings at a significantly higher elevation in the Deilmann TMF. Once we receive approval, this would provide us with enough tailings capacity to potentially mill a volume equal to all the known mineral reserves and resources from the McArthur River operation and additional capacity to toll mill ore from other regional deposits.

Rabbit Lake

The Rabbit Lake in-pit tailings management facility has the capacity to store tailings from milling ore from Rabbit Lake until approximately 2016. We are planning for an expansion of the tailings management facility to be ready by mid-2016. This will support the extension of Rabbit Lake's mine life and provide additional tailings capacity to process ore from other potential sources. We formally started the environmental assessment process in 2011 to receive regulatory approval for the expansion in tailings capacity.

If sloughing or other issues prevent us from maintaining the existing tailings management capacity at the Deilmann

TMF and Rabbit Lake pit, or if we are delayed or do not receive regulatory approval for new or expanded tailings facilities, uranium production could be constrained and this could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Aging facilities

Our Key Lake and Rabbit Lake mills are old and being refurbished. Our Port Hope fuel services facilities are also aging. This exposes us to a number of risks, including the potential for higher maintenance and operating costs, the need for significant capital expenditures to upgrade and refurbish these facilities, the potential for decreases or delays in, or interruption of, uranium and fuel services production, and the potential for environmental damage.

BPLP's nuclear generating stations are also aging. Testing and inspection programs have identified issues relating to the equipment life cycle, including corrosion of the steam generator tube, thinning of the feeder pipe wall and contact between the pressure tube and calandria tube. While we understand these conditions are a function of design, the equipment has degraded more quickly than anticipated.

No nuclear generating station using Candu technology has completed a full life cycle yet, so it is possible that BPLP may have to invest a significant amount of capital in repairing or replacing this and other equipment. BPLP may need to increase its preventive maintenance programs and allow more outage time (a period when a nuclear reactor is not operating) than currently planned.

These risks could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations or on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Reliance on development and expansion projects to fuel growth

Our ability to increase our uranium production depends in part on successfully developing new mines and/or expanding existing operations. Cigar Lake is our major development project and we have several other projects under evaluation: expansion of production from Inkai blocks 1 and 2 and development of Inkai block 3 in Kazakhstan, McArthur River extension, expansion of production from our US ISR operations, development of Millennium in Saskatchewan, and development of Kintyre in Australia.

Several factors affect the economics and success of development projects:

- capital and operating costs
- metallurgical recoveries
- the accuracy of reserve estimates
- government regulations
- availability of appropriate infrastructure, particularly power and water
- future uranium prices
- the accuracy of feasibility studies
- acquiring surface or other land rights
- receiving necessary government permits.

Development projects have no operating history that can be used to estimate future cash flows. We have to invest a substantial amount of capital and time to develop a project and achieve commercial production. A change in costs or construction schedule can affect the economics of a project. Actual costs could increase significantly and economic returns could be materially different from our estimates. We could fail to obtain the necessary governmental approvals for construction or operation. In any of these situations, a development project might not proceed according to its original timing, or at all.

It is not unusual in the nuclear energy or mining industries for new operations to experience unexpected problems during start-up, resulting in delays, higher capital expenditures than anticipated and reductions in planned production. Delays, additional costs or reduced production could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

There is no assurance we will be able to complete the development of new mines, or expand existing operations, economically or on a timely basis.

Developing additional reserves to sustain operations

The McArthur River, Rabbit Lake and Inkai mines are currently our main sources of mined uranium concentrates. We expect the reserves at our Rabbit Lake mine to be depleted in 2017.

As the reserves at these mines are depleted, our mineral reserves will decrease. We may not be able to sustain production if:

- the Cigar Lake deposit is not successfully developed and does not achieve its planned level of production
- the Inkai block 3, Millennium and Kintyre deposits are not successfully developed
- production from our US ISR sites is not increased
- we do not identify, discover or acquire other deposits
- we do not find extensions to existing orebodies, or
- we do not convert resources to reserves at our mines and development projects.

This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Although we have successfully replenished reserves in the past through ongoing exploration, development and acquisition programs, there is no assurance that we will be successful in our current or future exploration, development or acquisition efforts. We believe that Cigar Lake will achieve its planned levels of production, but there is no assurance it will.

Nuclear operations risks

Major nuclear incident risk

Although the safety record of nuclear reactors has generally been very good, there have been accidents and other unforeseen problems in the former USSR, the United States, Japan and in other countries. The consequences of a major incident can be severe and include loss of life, property damage and environmental damage. Any resulting liability from a major nuclear incident could exceed BPLP's resources, and its insurance coverage. In addition, an accident or other significant event at a nuclear plant – operated by BPLP or others – could result in increased regulation, less public support for nuclear fueled energy, lower demand for uranium and lower uranium prices. This could have a material and adverse effect on our own earnings, cash flows, financial condition, results of operations or prospects. If the event occurs at a plant operated by BPLP, this could significantly affect BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Public acceptance of nuclear energy is uncertain

Maintaining the demand for uranium at current levels and achieving any growth in demand in the future will depend on society's acceptance of nuclear technology as a means of generating electricity.

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

Japan has 54 nuclear reactors. As of February 8, 2012, Japan had three reactors operating. These three reactors are scheduled to enter regular maintenance shutdowns between late February and the end of April, at which time we expect all of Japan's nuclear reactors will be offline. Many are unaffected by the events in March 2011 but are offline for both planned and unplanned maintenance outages, and diminished public support has prevented utilities from gaining the regulatory and political approvals necessary to restart them. The Japanese government has ordered stress tests to be conducted on all reactors before allowing them to restart, and is implementing reforms to its existing nuclear regulatory framework and energy policy. Stress tests are progressing, but the government has not made any

final decisions about restarting the reactors. Local governement approval will also likely be required to allow reactors to restart. Japan's 54 reactors represent 12% of global nuclear generating capacity.

Germany, which represents 5% of world nuclear generating capacity, decided to revert to its previous phase-out policy, shutting down eight of its reactors, and plans to shut down the remaining nine reactors by 2022.

Lack of public acceptance of nuclear technology would have an adverse effect on the demand for nuclear power and potentially increase the regulation of the nuclear power industry. We may be impacted by changes in regulation and public perception of the safety of nuclear power plants, which could adversely affect the construction of new plants, the re-licensing of existing plants, the demand for uranium and the future prospects for nuclear generation. These events could have a material adverse effect on our own earnings, cash flows, financial condition, results of operations or prospects.

Risks, hazards and potential legal liability with nuclear power

Operating nuclear generating stations has inherent risks, including a substantial risk of liability and the potential for operating costs to rise significantly.

Risks and hazards can result from structural problems, technological problems, nuclear fuel supply, equipment failures, maintenance requirements, regulatory and environmental constraints, security requirements and the storage, handling and disposal of radioactive materials, among other things.

BPLP's risk management strategies include the safety systems that are a part of Candu technology, but there is no assurance that risk can be minimized or eliminated. An accident at a nuclear installation anywhere in the world, or other issues, could prompt the CNSC to limit the electrical output or the operation of the Bruce nuclear generation stations, or impose significant conditions on its licence. Any type of accident could also have an impact on the future prospects for nuclear generation.

There is no assurance that these risks and hazards will not result in:

- damage to or destruction of BPLP's nuclear facilities
- personal injury or death
- environmental damage
- delays in, interruption or decrease of electrical generation or halting of electrical generation from BPLP's facilities
- costs, expenses or monetary losses
- legal liability
- adverse government action.

Any of these things could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Impact of unplanned or extended outages on electrical production

We can be affected by planned outages that are significantly longer than scheduled, and unplanned outages that extend over a period of time. Either of these situations could result in less electricity generated than expected, which could significantly affect BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Dependence on reliable transmission systems

BPLP's ability to sell electricity depends on the capacity, reliability and regulation of the Ontario electricity transmission system and other North American electricity transmission systems that are connected to the Ontario grid. Inadequate or unreliable electricity transmission capacity or disruptions in electricity transmission systems could have a material and adverse effect on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Impact of weather and economic conditions on electrical production

BPLP's earnings are sensitive to variations in the weather. Variations in winter weather affect the demand for

electrical heating, while variations in summer weather affect the demand for electrical cooling.

Industrial and wholesale demand for electricity in Ontario has decreased because of weak economic conditions in the province and some parts of North America. Wholesale demand has declined significantly since 2004. Ontario demand in 2011 was down by 0.5% or 0.7 TWh compared to 2010. While this decrease signals continued inertia in the economy, we believe it will take some time for demand to return to prior levels.

Dependence on a single contractor

BPLP depends on OPG and AECL as single source contractors for certain nuclear support services.

Relying on a single contractor creates a security supply risk for BPLP. If either of these suppliers does not provide quality service or timely service, it could have a material and adverse effect on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Labour and employment

People are core to our business. We compete with other nuclear energy and mining companies for talented, quality people, and we may not always be able to fill positions on a timely basis. There is a limited pool of skilled people and competition is intense. We will need additional financial, administrative, technical and operations staff to fill key positions as our business activity grows and we experience employee turnover because of an aging workforce.

If we cannot attract and train qualified successors for our senior and operating positions, it could reduce the efficiency of our operations and have an adverse effect on our earnings, cash flows, financial condition or results of operations.

We have unionized employees and face the risk of strikes. At December 31, 2011, we had 3,470 employees (including employees of our subsidiaries, but not including Inkai or BPLP). This includes 910 unionized employees at McArthur River, Key Lake, Port Hope and at CFM's facilities, who are members of four different locals of the United Steelworkers trade union. BPLP has 4,000 employees, and most of them are unionized.

Collective agreements

- The collective agreement with the bargaining unit employees at CFM expires on June 1, 2012. This agreement was signed following a three-month strike in 2009.
- The collective agreement with the bargaining unit employees at the McArthur River and Key Lake operations expires on December 31, 2013.
- The collective agreement with the bargaining unit employees at the Port Hope conversion facility expires on June 30, 2013.
- BPLP's collective agreement with the Power Workers' Union expires on December 31, 2013 and BPLP's collective agreement with The Society of Energy Professionals expires on December 31, 2014.

We cannot predict whether we or BPLP will reach new collective agreements with these and other employees without a work stoppage or work interruptions while negotiations are underway.

From time to time, the mining or nuclear energy industry experiences a shortage of tradespeople and other skilled or experienced personnel globally, regionally or locally. We have a comprehensive strategy to attract and retain high calibre people, but there is no assurance this strategy will protect us from the effects of a labour shortage.

A lengthy work interruption or labour shortage could have an adverse effect on our earnings, cash flows, financial condition or results of operations.

Joint ventures

We participate in McArthur River, Key Lake, Cigar Lake, Inkai, Millennium, Kintyre, BPLP and GLE through joint ventures with third parties. Some of these joint ventures are unincorporated, some are incorporated (like Inkai and GLE) and some are partnerships or limited partnerships (like BPLP). We have other joint ventures and may enter into more in the future.

There are risks associated with joint ventures, including:

- disagreement with a joint venture partner about how to develop, operate or finance a project
- a joint venture partner not complying with a joint venture agreement
- possible litigation between joint venture partners about joint venture matters
- the inability to exert control over decisions related to a joint venture we do not have a controlling interest in.

Our joint venture partner in Kazakhstan is a state entity, so its actions and priorities could be dictated by government policies instead of commercial considerations.

These risks could result in legal liability, affect our ability to develop or operate a project under a joint venture, or have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Supplies and contractors

Supplies

We buy reagents and other production inputs and supplies from suppliers around the world. If there is a shortage of any of these supplies, including parts and equipment, or their costs rise significantly, it could limit or interrupt production or increase production costs. It could also have an adverse effect on our ability to carry out operations or have a material and adverse effect on our earnings, cash flows, financial condition or results of operations. We are examining our entire supply chain to identify areas to diversify or add inventory where we may be vulnerable, but there is no assurance that we will be able to mitigate the risk.

Contractors

In some cases we rely on a single contractor to provide us with reagents or other production inputs and supplies. Relying on a single contractor is a security supply risk because we may not receive quality service, timely service, or service that otherwise meets our needs. These risks could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Uranium exploration is highly speculative

Uranium exploration is highly speculative and involves many risks, and few properties that are explored are ultimately developed into producing mines.

Even if mineralization is discovered, it can take several years in the initial phases of drilling until a production decision is possible, and the economic feasibility of developing an exploration property may change over time. We are required to make a substantial investment to establish proven and probable mineral reserves, to determine the optimal metallurgical process to extract minerals from the ore, to construct mining and processing facilities (in the case of new properties) and to extract and process the ore. We might abandon an exploration project because of poor results or because we feel that we cannot economically mine the mineralization.

Given these uncertainties, there is no assurance that our exploration activities will be successful and result in new reserves to expand or replace our current mineral reserves.

Infrastructure

Mining, processing, development and exploration can only be successful with adequate infrastructure. Reliable roads, bridges, power sources and water supply are important factors that affect capital and operating costs and the ability to deliver products on a timely basis.

Our activities could be negatively affected if unusual weather, interference from communities, government or others, aging, sabotage or other causes affect the quality or reliability of the infrastructure.

A lack of adequate infrastructure could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

2 – Political risks

Foreign investments and operations

We do business in countries and jurisdictions outside of Canada and the United States, including the developing world, and invest in companies that also carry out these activities in these countries. Doing business in these countries poses risks because they have different economic, cultural, regulatory and political environments. Future economic and political conditions could also cause the governments of these countries to change their policies on foreign investments, development and ownership of mineral resources, or impose other restrictions, limitations or requirements that we may not foresee today.

Risks related to doing business in a foreign country can include:

- uncertain legal, political and economic environments
- strong governmental control and regulation
- lack of an independent judiciary
- war, terrorism and civil disturbances
- crime, corruption, making improper payments or providing benefits that may violate Canadian or United States law or laws relating to foreign corrupt practices
- unexpected changes in governments and regulatory officials
- uncertainty or disputes as to the authority of regulatory officials
- changes in a country's laws or policies, including those related to mineral tenure, mining, imports, exports, tax, duties and currency
- cancellation or renegotiation of permits or contracts
- royalty and tax increases or other claims by government entities, including retroactive claims
- expropriation and nationalization
- delays in obtaining the necessary permits or the inability to obtain or maintain them
- currency fluctuations
- high inflation
- joint venture partners falling out of political favour
- restrictions on local operating companies selling their production offshore, and holding US dollars or other foreign currencies in offshore bank accounts
- import and export regulations, including restrictions on the export of uranium
- limitations on the repatriation of earnings
- increased financing costs.

If one or more of these risks occur, it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

We also risk being at a competitive disadvantage to companies from countries that are not subject to Canadian or United States law or laws relating to foreign corrupt practices.

We enter into joint venture arrangements with local partners from time to time to mitigate political risk. There is no assurance that these joint ventures will mitigate our political risk in a foreign jurisdiction.

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

Kazakhstan

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

To maintain and increase production at Inkai, we need ongoing support, agreement and co-operation from our partner, Kazatomprom, and from the government. Kazakh foreign investment, environmental and mining laws and regulations are complex and still developing, so it can be difficult to predict how they will be applied. Inkai's best

efforts may therefore not always reflect full compliance with the law, and non-compliance can lead to an outcome that is disproportionate to the nature of the breach.

Subsoil law
Amendments to the subsoil law in 2007 allow the government to reopen resource use contracts in certain circumstances, and in 2009, the Kazakhstan government passed a resolution that classified 231 blocks, including all three Inkai blocks, as strategic deposits. These actions may increase the government's ability to expropriate Inkai's properties in certain situations. In 2009, at the request of the Kazakhstan government, Inkai amended the resource use contract to adopt a new tax code, even though the government had agreed to tax stabilization provisions in the original contract.

A new subsoil use law went into effect in 2010 that weakens the stabilization guarantee of the prior law. This development reflects increased political risk in Kazakhstan.

Nationalization
Industries like mineral production are regarded as nationally or strategically important, but there is no assurance they will not be expropriated or nationalized. Government policy can change to discourage foreign investment and renationalize mineral production, or the government can implement new limitations, restrictions or requirements.

There is no assurance that our assets in Kazakhstan and other countries will not be nationalized, taken over or confiscated by any authority or body, whether the action is legitimate or not. While there are provisions for compensation and reimbursement of losses to investors under these circumstances, there is no assurance that these provisions would restore the value of our original investment or fully compensate us for the investment loss. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Government regulations
Our operations in Kazakhstan may be affected in varying degrees by government regulations restricting production, price controls, export controls, currency controls, taxes and royalties, expropriation of property, environmental, mining and safety legislation, and annual fees to maintain mineral properties in good standing. There is no assurance that the laws in Kazakhstan protecting foreign investments will not be amended or abolished, or that these existing laws will be enforced or interpreted to provide adequate protection against any or all of the risks described above. There is also no assurance that the resource use contract can be enforced or will provide adequate protection against any or all of the risks described above.

Civil unrest
There has been recent civil unrest in the oil producing region of West Kazakhstan. The government has taken action to resolve the underlying concerns and restore stability. Inkai, which is in South Kazakhstan, has not been impacted by the civil unrest. We are monitoring the situation. There is no assurance that Inkai's operations will not be impacted by civil unrest in the future.

See page 41 for a more detailed discussion of the regulatory and political environment in Kazakhstan.

Australia

State governments in Australia have prohibited uranium mining or uranium exploration from time to time, and from 2002 to 2008, uranium mining was banned in Western Australia, where our Kintyre development project is located. A prohibition or restriction on uranium exploration or mining in the future that interferes with the development of Kintyre could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

3 – Regulatory risks

Government laws and regulation

Our operations and exploration activities are subject to extensive and complex laws and regulations.

There are laws and regulations for uranium exploration, development, mining, milling, refining, conversion, fuel manufacturing, transport, exports, imports, taxes and royalties, labour standards, occupational health, waste disposal, protection and remediation of the environment, decommissioning and reclamation, safety, hazardous substances, emergency response, land use, water use and other matters.

Significant financial and management resources are required to comply with these laws and regulations, and this will likely continue as laws and government regulations become more and more strict. We are unable to predict the ultimate cost of compliance or its effect on our operations because legal requirements change frequently, are subject to interpretation and may be enforced to varying degrees.

Some of our operations are regulated by government agencies that exercise discretionary powers conferred by statute. If these agencies do not apply their discretionary authority consistently, then we may not be able to predict the ultimate cost of complying with these requirements or their effect on operations.

Existing, new or changing laws, regulations and standards of regulatory enforcement could increase costs, lower, delay or interrupt production or affect decisions about whether to continue with existing operations or development projects. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

If we do not comply with the laws and regulations that apply to our business, then regulatory or judicial authorities could take any number of enforcement actions, including:

- corrective measures that require us to increase capital or operating expenditures or install additional equipment
- remedial actions that result in temporary or permanent shut-down or reduction of our operations
- requirements that we compensate communities that suffer loss or damage because of our activities
- civil or criminal fines or penalties.

Legal and political circumstances are different outside North America, which can change the nature of regulatory risks in foreign jurisdictions when compared with regulatory risks associated with operations in North America.

Permitting and licensing

All uranium mining projects and processing facilities around the world require government approvals, licences or permits, and our operations and development projects in Canada, the US, Kazakhstan and Australia are no exception. Depending on the location of the project, this can be a complex and time consuming process involving multiple government agencies.

We have to obtain and maintain many approvals, licences and permits from the appropriate regulatory authorities, but there is no assurance that they will grant or renew them, approve any additional licences or permits for potential changes to our operations in the future or in response to new legislation, or that they will process any of the applications on a timely basis. Stakeholders, like environmental groups, non-government organizations (NGOs) and aboriginal groups claiming rights to traditional lands, can raise legal challenges. A significant delay in obtaining or renewing the necessary approvals, licences or permits, or failure to receive the necessary approvals, licences or permits, could interrupt or prevent the development or operation of our mining and processing facilities, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Nuclear plant regulation

BPLP's nuclear electricity business is subject to extensive government regulations covering nuclear operations, nuclear waste management and decommissioning and environmental matters, and the Bruce B operating licence for

its nuclear generation facilities can be revoked if BPLP does not comply. The government also can impose additional conditions on the licences, or impose fines or other penalties. Regulations are promulgated under federal and provincial law.

Because studies revealed that emergency shutdown systems might not have sufficient safety margins for low probability events, the CSNC limited the four Bruce B units to 90% of operating power. The CNSC later approved the uprating of the units to 93% of operating power, but there is no assurance that the CNSC will not significantly derate them in the future.

Compliance with these regulations, the imposition of additional conditions, fines or penalties or a derating of the Bruce B units could have a material adverse effect on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

Regulation of the Ontario electricity market

The government of Ontario regulates Ontario's electricity industry, which opened to competition on May 1, 2002 in both the wholesale and retail markets. The government has since announced regulatory changes, and could make additional or fundamental changes to the structure of the electricity market or new market rules based on the experience of the regulatory authorities and market participants.

Any of these factors could have a material and adverse effect on BPLP's contribution to our earnings, cash flows, financial conditions or results of operations.

4 – Financial risks

Volatility and sensitivity to prices

Since a significant portion of our revenues come from the sale of uranium and conversion services, our earnings and cash flow are closely related to, and sensitive to, fluctuations in the long and short-term market prices of U_3O_8 and uranium conversion services.

Many factors beyond our control affect these prices, including the following, among others:

- demand for nuclear power
- forward contracts of U_3O_8 supplies by nuclear power plants
- political and economic conditions in countries producing and buying uranium
- reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails
- sales of excess civilian and military inventories of uranium by governments and industry participants (including uranium from dismantling nuclear weapons)
- levels of uranium production and production costs
- significant interruptions in production or delays in expansion plans or new mines going into production
- investment and hedge fund activity in the uranium market.

We cannot predict the effect that any one or all of these factors will have on the price of U_3O_8 and uranium conversion services. Prices have fluctuated widely in the last several years, and there have been significant declines since 2007.

The table below shows the range in spot prices over the last five years.

Range of spot uranium prices
US$/lb of U_3O_8

	2007	2008	2009	2010	2011
High	$135.50	$76.50	$51.50	$62.25	$72.63
Low	75.00	45.50	42.00	40.75	49.13

Spot UF_6 conversion values US$/kg U					
High	$11.63	$9.50	$8.50	$13.00	$13.00
Low	8.75	8.00	5.75	5.38	8.00

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

Range of term uranium prices US$/lb of U_3O_8					
	2007	**2008**	**2009**	**2010**	**2011**
High	$95.00	$95.00	$69.50	$66.00	$71.50
Low	75.00	70.00	61.00	59.00	62.00
Term UF_6 conversion values US$/kg U					
High	$12.25	$12.25	$12.25	$15.00	$16.75
Low	12.25	12.25	11.00	11.00	15.25

Notes

Spot and term uranium prices are the average of prices published monthly by Ux Consulting and from The Nuexco Exchange Value, published by TradeTech.

Spot and term UF_6 conversion values are the average of prices published monthly by Ux Consulting and from The Nuexco Conversion Value, published by TradeTech.

If prices for U_3O_8 or uranium conversion services fall below our own production costs for a sustained period, continued production or conversion at our sites may cease to be profitable. This would have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Declines in U_3O_8 prices could also delay or deter a decision to build or begin commercial production at one or more of our development projects, or adversely affect our ability to finance these development projects. Either of these could have an adverse effect on our future earnings, cash flows, financial condition, results of operations or prospects.

A sustained decline in U_3O_8 prices may require us to write down our mineral reserves and mineral resources, and any significant write downs may lead to material write downs of our investment in the mining properties affected, and an increase in charges for amortization, reclamation and closures.

We use a uranium contracting strategy as a way to reduce volatility in our future earnings and cash flow from exposure to fluctuations in uranium prices. It involves building a portfolio that consists of fixed-price contracts and market-related contracts with terms of 10 years or more. This strategy can create opportunity losses because we may not benefit fully if there is a significant increase in U_3O_8 prices. This strategy also creates currency risk since we receive payment under the majority of our sales contracts in US$. There is no assurance that our contracting strategy will be successful.

We participate in the uranium spot market from time to time, making purchases so we can put material into higher priced contracts. There are, however, risks associated with spot market purchases, including the risk of losses, which could have an adverse effect on our earnings, cash flows, financial condition or results of operations.

Spot market electricity prices

Electricity prices can be volatile. BPLP's risk management activities include trading electricity and related contracts to mitigate these risks. There is no assurance, however, that the activities will be successful.

Reserve, resource, production and capital cost estimates

Reserve and resource estimates are not precise

Our mineral reserves and resources are the foundation of our uranium mining operations. They dictate how much uranium concentrate we can produce, and for how many years.

The uranium mineral reserves and resources reported in this AIF are estimates, and are therefore subjective. There is no assurance that the indicated tonnages or grades of uranium will be mined or milled or that we will receive the uranium price we used in estimating these reserves.

While we believe that the mineral reserve and resource estimates included in this AIF are well established and reflect management's best estimates, reserve and resource estimates, by their nature, are imprecise, do not reflect exact quantities and depend to a certain extent on statistical inferences that may ultimately prove unreliable. The volume and grade of reserves we actually recover, and rates of production from our current mineral reserves, may be less than the estimate of the reserves. Fluctuations in the market price of uranium, changing exchange rates and operating and capital costs can make reserves uneconomic to mine in the future and ultimately cause us to reduce our reserves.

Short-term operating factors relating to mineral reserves, like the need for orderly development of orebodies or the processing of different ore grades, can also prompt us to modify reserve estimates or make reserves uneconomic to mine in the future, and can ultimately cause us to reduce our reserves. Reserves also may have to be re-estimated based on actual production experience.

Mineral resources may ultimately be reclassified as proven or probable mineral reserves if they demonstrate profitable recovery. Estimating reserves or resources is always affected by economic and technological factors, which can change over time, and experience in using a particular mining method. There is no assurance that any resource estimate will ultimately be reclassified as proven or probable reserves. If we do not obtain or maintain the necessary permits or government approvals, or there are changes to applicable legislation, it could cause us to reduce our reserves.

Mineral resource and reserve estimates can be uncertain because they are based on data from limited sampling and drilling and not from the entire orebody. As we gain more knowledge and understanding of an orebody, the resource and reserve estimate may change significantly, either positively or negatively.

If our mineral reserve or resource estimates for our uranium properties are inaccurate or are reduced in the future, it could:

- require us to write down the value of an operating property or development project
- result in lower uranium concentrate production than previously estimated
- require us to incur increased capital or operating costs, or
- require us to operate mines or facilities unprofitably.

This could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations or prospects.

Production and capital cost estimates may be inaccurate

We prepare estimates of future production and capital costs for particular operations, but there is no assurance we will achieve these estimates. Estimates of expected future production and capital costs are inherently uncertain, particularly beyond one year, and could change materially over time.

Production and capital cost estimates for:

- McArthur River also assume the successful transition to new mining areas
- Cigar Lake assume that development activities are completed successfully
- Inkai assume it receives regulatory approval, approval from our partner and is able to ramp up production to the design capacity rate of 5.2 million pounds.

Production estimates for uranium refining, conversion and fuel manufacturing assume there is no disruption or reduction in supply from us or third party sources, and that estimated rates and costs of processing are accurate, among other things.

Our actual production and capital costs may vary from estimates for a variety of reasons, including, among others:

- actual ore mined varying from estimated grade, tonnage, dilution, metallurgical and other characteristics
- mining and milling losses greater than planned
- short-term operating factors relating to the ore, such as the need for sequential development of orebodies and the processing of new or different ore grades
- risk and hazards associated with mining, milling, uranium refining, conversion and fuel manufacturing
- failure of mining methods and plans
- failure to obtain and maintain the necessary regulatory and partner approvals
- lack of tailings capacity
- natural phenomena, such as inclement weather conditions or floods
- labour shortages or strikes
- delay or lack of success in mining new areas at McArthur River or completing construction activities
- development, mining or production plans for Cigar Lake are delayed or do not succeed for any reason, including technical difficulties with the jet boring mining method or our inability to solve technical challenges as they arise or acquire any of the required jet boring equipment
- delays, interruption or reduction in production or construction activities due to fires, failure or unavailability of critical equipment, shortage of supplies, underground floods, earthquakes, tailings dam failures, lack of tailings capacity, ground movements and cave ins, or other difficulties.

Failure to achieve production or capital cost estimates could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Currency fluctuations

Our earnings and cash flow may also be affected by fluctuations in the exchange rate between the Canadian and US dollar. Our sales of uranium and conversion services are mostly denominated in US dollars, while the production costs of both are denominated primarily in Canadian dollars. Our consolidated financial statements are expressed in Canadian dollars.

Any fluctuations in the exchange rate between the US dollar and Canadian dollar can result in favourable and unfavourable foreign currency exposure, which can have a material effect on our future earnings, cash flows, financial condition or results of operations, as has been the case in the past. While we use a hedging program to limit any adverse effects of fluctuations in foreign exchange rates, there is no assurance that these hedges will eliminate the potential material negative impact of fluctuating rates.

Customers

Our main business relates to the production and sale of uranium concentrates and providing uranium conversion services. We rely heavily on a small number of customers to purchase a significant portion of our uranium concentrates and conversion services.

From 2012 through 2014, we expect:

- our five largest customers to account for 38% of our contracted supply of U_3O_8
- our five largest UF_6 conversion customers to account for 44% of our contracted supply of UF_6 conversion services.

We are currently the only commercial supplier of UO_2 used by Canadian Candu heavy water reactors. Our sales to our largest customer accounted for 43% of our UO_2 sales in 2011.

In addition, revenues in 2011 from one customer of our uranium and conversion segments represented $134.7 million (7%) of our total revenues from those businesses. Sales for the Bruce A and B reactors represent a substantial portion of our fuel manufacturing business.

If we lose any of our largest customers or if any of them curtails their purchases, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Counterparty and credit risk

Our business operations expose us to the risk of counterparties not meeting their contractual obligations, including:

- customers
- suppliers
- financial institutions and other counterparties to our derivative financial instruments and hedging arrangements relating to foreign currency exchange rates and interest rates
- financial institutions which hold our cash on deposit
- insurance providers.

Credit risk is the risk that counterparties will not be able to pay for services provided under the terms of the contract. If a counterparty to any of our significant contracts defaults on a payment or other obligation or becomes insolvent, it could have a material and adverse effect on our cash flows, earnings, financial condition or results of operations.

Uranium products, conversion and fuel services

We manage the credit risk of our customers for uranium products, conversion and fuel services by:

- monitoring their creditworthiness
- asking for pre-payment or another form of security if they pose an unacceptable level of credit risk.

As of December 31, 2011, 95% of our forecast revenue under contract for the period 2012 to 2014 is with customers whose creditworthiness meets our standards for unsecured payment terms.

Electricity

Excluding revenue support payments from the Ontario government, BPLP's revenues come from two main sources:

- electricity sales through the spot market administered by government regulators
- electricity sales under short-term, medium-term and long-term power purchase and electricity price hedging agreements.

Spot market participants must meet standards for creditworthiness that are mandated by regulators, so we believe BPLP's credit risk for sales to these customers is effectively managed. If these purchasers do not provide adequate credit support to the regulators, all market participants, including BPLP, could be responsible for any shortfall, in proportion to their market activity.

BPLP requires purchasers under these agreements to meet certain standards for creditworthiness to manage credit risk. In some cases, they must provide financial assurances as security for non-performance.

Other

We manage the credit risk on our derivative and hedging arrangements, cash deposits and insurance policies by dealing with financial institutions and insurers that meet our credit rating standards and by limiting our exposure to individual counterparties.

We diversify or increase inventory in our supply chain to limit our reliance on a single contractor, or limited number of contractors. We also monitor the creditworthiness of our suppliers to manage the risk of suppliers defaulting on delivery commitments.

There is no assurance, however, that we will be successful in our efforts to manage the risk of default or credit risk.

Liquidity and financing

Nuclear energy and mining are extremely capital intensive businesses, and companies need significant ongoing capital to maintain and improve existing operations, invest in large scale capital projects with long lead times, and

manage uncertain development and permitting timelines and the volatility associated with fluctuating uranium and input prices.

We believe our current financial resources are sufficient to support the exploration and development projects we have planned. If we expand these projects or our programs overall, we may need to raise additional financing through joint ventures, debt financing, equity financing or other means.

There is no assurance that we will obtain the financing we need, when we need it. Volatile uranium markets, a claim against us, a significant event disrupting our business or operations, or other factors may make it difficult or impossible for us to obtain debt or equity financing on favourable terms, or at all.

Operating and capital plans

We establish our operating and capital plans based on the information we have at the time, including expert opinions. There is no assurance, however, that these plans will not change as new information becomes available or there is a change in expert opinion.

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

Internal controls

We use internal controls over financial reporting to provide reasonable assurance that we authorize transactions, safeguard assets against improper or unauthorized use, and record and report transactions properly. This gives us reasonable assurance that our financial reporting is reliable, and prepared in accordance with IFRS.

It is impossible for any system to provide absolute assurance or guarantee reliability, regardless of how well it is designed or operated. We continue to evaluate our internal controls to identify areas for improvement and provide as much assurance as reasonably possible. We conduct an annual assessment of our internal controls over financial reporting and produce an attestation report of their effectiveness by our independent auditors to meet the requirement of Section 404 of the Sarbanes-Oxley Act of 2002.

If we do not satisfy the requirements for internal controls on an ongoing, timely basis, it could negatively affect investor confidence in our financial reporting, which could have an impact on our business and the trading price of our common shares. If a deficiency is identified and we do not introduce new or better controls, or have difficulty implementing them, it could harm our financial results or our ability to meet reporting obligations.

Carrying values of assets

We evaluate the carrying value of our assets to decide whether current events and circumstances indicate whether or not we can recover the carrying amount. This involves comparing the estimated fair value of our reporting units to their carrying values.

We base our fair value estimates on various assumptions, however, the actual fair values can be significantly different than the estimates. If we do not have any mitigating valuation factors or experience a decline in the fair value of our reporting units, it could ultimately result in an impairment charge.

5 – Environmental risks

Complex legislation and environmental, health and safety risk

Our activities have an impact on the environment, so our operations are subject to extensive and complex laws and regulations relating to the protection of the environment, employee health and safety and waste management. We

also face risks that are unique to uranium mining, processing and fuel manufacturing. Laws to protect the environment as well as employee health and safety are becoming more stringent for members of the nuclear energy industry.

Our facilities operate under various operating and environmental approvals, licences and permits that have conditions that we must meet as part of our regular business activities. In a number of instances, our right to continue operating these facilities depends on our compliance with these conditions.

Our ability to obtain approvals, licences and permits, maintain them, and successfully develop and operate our facilities may be adversely affected by the real or perceived impact of our activities on the environment and human health and safety at our development projects and operations and in the surrounding communities. The real or perceived impact of activities of other nuclear energy or mining companies can also have an adverse effect on our ability to secure and maintain approvals, licences and permits.

Our compliance with laws and regulations relating to the protection of the environment, employee health and safety, and waste management requires significant expenditures and can cause delays in production or project development. This has been the case in the past and may be so in future. Failing to comply can lead to fines and penalties, temporary or permanent suspension of development and operational activities, clean-up costs, damages and the loss of key approvals, permits and licences. We are exposed to these potential liabilities for our current development projects and operations as well as operations that have been closed. There is no assurance that we have been or will be in full compliance with all of these laws and regulations, or with all the necessary approvals, permits and licences.

Laws and regulations on the environment, employee health and safety, and waste management continue to evolve and this can create significant uncertainty around the environmental, employee health and safety, and waste management costs we incur. If new legislation and regulations are introduced in the future, they could lead to additional capital and operating costs, restrictions and delays at existing operations or development projects, and the extent of any of these possible changes cannot be predicted in a meaningful way.

Environmental and regulatory review is a long and complex process that can delay the opening, modification or expansion of a mine, conversion facility or refining facility, or extend decommissioning activities at a closed mine or other facility.

Our ability to foster and maintain the support of local communities and governments for our development projects and operations is critical to the conduct and growth of our business, and we do this by engaging in dialogue and consulting with them about our activities and the social and economic benefits they will generate. There is no assurance, however, that this support can be fostered or maintained. There is an increasing level of public concern relating to the perceived effect that nuclear energy and mining activities have on the environment and communities affected by the activities. Some NGOs are vocal critics of the nuclear energy and mining industries, and oppose globalization, nuclear energy and resource development. Adverse publicity generated by these NGOs or others, related to the nuclear energy industry or the extractive industry in general, or our operations in particular, could have an adverse effect on our reputation or financial condition and may affect our relationship with the communities we operate in. While we are committed to operating in a socially responsible way, there is no guarantee that our efforts will mitigate this potential risk.

These risks could delay or interrupt our operations or project development activities, delay, interrupt or lower our production and have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Decommissioning and reclamation obligations

Environmental regulators are demanding more and more financial assurances so that the parties involved, and not the government, bear the cost of decommissioning and reclaiming sites.

We have filed decommissioning plans for some of our properties with the regulators. We review these plans every five years, or at the time of an amendment or renewal of an operating licence. Plans for our US sites are reviewed

every year. Regulators may conduct a further review of the detailed decommissioning plans, and this can lead to additional requirements, costs and financial assurances. It is not possible to predict what level of decommissioning and reclamation and financial assurances regulators may require in the future.

If we must comply with additional regulations, or the actual cost of decommissioning and reclamation in the future is significantly higher than our current estimates, this could have a material and adverse effect on our future earnings, cash flows, financial condition or results of operations.

In addition, if a previously unrecognized reclamation liability becomes known or a previously estimated decommissioning or reclamation cost is increased, the amount of that liability or additional cost is expensed, and this can have a material negative effect on our net income for the period.

Nuclear waste management and decommissioning (Bruce Power)

BPLP is subject to extensive federal regulation related to nuclear waste management. Not complying with the regulations could lead to:

- prosecution, and possibly cause the operating licences for its nuclear generation facilities to be revoked
- additional conditions imposed under the licences
- fines and other penalties.

If BPLP releases radioactive material at higher than the prescribed limits, it could lead to a government ordered investigation, control and/or remediation of the release and claims from third parties for harm caused by the release. BPLP already incurs substantial costs for nuclear waste management and changes in federal regulation could result in additional costs that could have a material and adverse effect on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

The wet bays at Bruce B have limited capacity to store used nuclear fuel. Under its contract with BPLP, OPG has started collecting used nuclear fuel bundles, stored in the wet bays, for transport and storage at the OPG dry storage facility at the Bruce site. OPG has title to all used nuclear fuel bundles in the wet bays. If OPG fails to continue providing adequate service to collect the used fuel bundles, does not do it on a timely basis, or experiences problems associated with the station modifications in the wet bays to support the loading of bundles into dry storage containers, this could have a material and adverse effect on BPLP's contribution to our earnings, cash flows, financial condition or results of operations.

6 – Legal and other risks

Litigation

We and BPLP are currently subject to litigation or threats of litigation, and may be involved in disputes with other parties in the future that result in litigation.

We cannot accurately predict the outcome of any litigation. If a dispute cannot be resolved favourably, it may delay or interrupt our operations or project development activities and have a material and adverse effect on our earnings, cash flows, financial condition or results of operations. See *Legal proceedings* on page 120 for more information.

Legal rights

If a dispute arises at our foreign operations, it may be under the exclusive jurisdiction of foreign courts, or we may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada. We could also be hindered or prevented from enforcing our rights relating to a government entity or instrumentality because of the doctrine of sovereign immunity.

The dispute resolution provision of the resource use contract for Inkai and Russian HEU commercial agreement stipulate that any dispute between the parties is to be submitted to international arbitration. There is no assurance, however, that a particular government entity or instrumentality will either comply with the provisions of these or any

other agreements, or voluntarily submit a dispute to arbitration. If we are unable to enforce our rights under these agreements, this could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Defects in title

We have investigated our rights to explore and exploit all of our material properties, and those rights are in good standing to the best of our knowledge. There is no assurance, however, that these rights will not be revoked or significantly altered to our detriment, or that our rights will not be challenged by third parties, including local governments and by indigenous groups, such as First Nations and Métis in Canada.

Indigenous rights, title claims and consultation

Managing indigenous rights, title claims and consultation is an integral part of our exploration, development and mining activities, and we are committed to managing them effectively. There is no assurance, however, that we will not face material adverse consequences because of the legal and factual uncertainties with these issues.

Saskatchewan

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

We also face similar issues with our exploration activities in other provinces and countries. We have received formal demands from the English First River Nation and the Métis Nation of Saskatchewan to consult with and accommodate them when we operate or develop on traditional lands. All aboriginal groups in northern Saskatchewan expect this of us.

It is generally acknowledged that under historical treaties, First Nation bands in northern Saskatchewan ceded title to most traditional lands in the region in exchange for treaty benefits and reserve lands. First Nations in Saskatchewan, however, generally continue to assert that their treaties are not an accurate record of their agreement with the Canadian government and that they did not cede title to the minerals when they ceded title to their traditional lands. First Nations have launched a lawsuit in Alberta making a similar claim that they did not cede title to the oil and natural gas rights when they ceded title to their traditional lands. There is a risk that the First Nations in Saskatchewan may launch a similar lawsuit.

The English First River Nation selected lands for designation as Treaty Land Entitlement (TLE) that cover the mineral claims for the Millennium uranium deposit. The Saskatchewan government rejected this selection in December 2008, but the English First River Nation has challenged that rejection in the courts. The TLE process does not affect the rights of our mining joint ventures. It may, however, affect the surface rights and benefits ultimately negotiated as part of the development of Millennium, and we are monitoring developments on the litigation.

Kintyre

To proceed with development of Kintyre in Australia, we must reach an agreement with the Martu, the native land title holders for this property. In 2011, we signed a non-binding memorandum of understanding with the Martu that acknowledges their support in principle for development of the project and outlines a target schedule for finalizing the terms of a comprehensive agreement. Negotiations are ongoing, but we are uncertain whether we will able to ultimately reach an agreement.

Fuel fabrication defects and product liability

We fabricate nuclear fuel bundles, other reactor components and monitoring equipment. These products are complex and may have defects that can be detected at any point in their product life cycle. Flaws in the products could materially and adversely affect our reputation, which could result in a significant cost to us and have a negative effect on our ability to sell our products in the future. We could also incur substantial costs to correct any product errors, which could have an adverse effect on our operating margins. While we introduced a new rigorous process for review

and control in 2007, there is no guarantee that we will detect all defects or errors in our products.

It is possible that some customers may demand compensation if we deliver defective products. If there are a significant number of product defects, it could have a significant impact on our operating results.

Agreements with some customers may include specific terms limiting liability to customers. Even if there are limited liability provisions in place, existing or future laws, or unfavourable judicial decisions may make them ineffective. We have not experienced any material product liability claims to date, however, they could occur in the future because of the nature of nuclear fuel products. A successful product liability claim could result in significant monetary liability and could seriously disrupt our fuel manufacturing business and the company overall.

7 – Industry risks

Alternate sources of energy

Nuclear energy competes with other sources of energy like oil, natural gas, coal and hydro-electricity. These sources are somewhat interchangeable with nuclear energy, particularly over the longer term.

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

Industry competition and international trade restrictions

The international uranium industry, which includes supplying uranium concentrates and providing uranium conversion services, is highly competitive. We market uranium to utilities, and directly compete with a relatively small number of uranium mining and enrichment companies in the world. Their supply may come from mining uranium, excess inventories, including inventories made available from decommissioning of nuclear weapons, reprocessed uranium and plutonium derived from used reactor fuel, and from using excess enrichment capacity to re-enrich depleted uranium tails.

The supply of uranium is affected by a number of international trade agreements and policies. These and any similar future agreements, governmental policies or trade restrictions are beyond our control and may affect the supply of uranium available in the US, Europe and Asia, the world's largest markets for uranium. If we cannot supply uranium to these important markets, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

For conversion services, we compete with three other primary commercial suppliers. In addition, we compete with the availability of additional supplies from excess inventories, including those from decommissioning nuclear weapons and using excess enrichment capacity to re-enrich depleted uranium tails.

Any political decisions about the uranium market can affect our future prospects. There is no assurance that the US or other governments will not enact legislation or take other actions that restricts who can buy or supply uranium, or facilitates a new supply of uranium.

Competition for sources of uranium

There is growing competition for mineral acquisition opportunities throughout the world, so we may not be able to acquire rights to explore additional attractive uranium mining properties on terms that we consider acceptable.

There is no assurance that we will acquire any interest in additional uranium properties, or buy additional uranium concentrates from the decommissioning of nuclear weapons or the release of excess government inventory, that will result in additional uranium concentrates we can sell. If we are not able to acquire these interests or rights, it could have a material and adverse effect on our future earnings, cash flows, financial condition or results of operations. Even if we do acquire these interests or rights, the resulting business arrangements may ultimately prove not to be beneficial.

Deregulation of the electrical utility industry

A significant part of our future prospects is directly linked to developments in the global electrical utility industry.

Deregulation of the utility industry, especially in the US and Europe, is expected to affect the market for nuclear and other fuels and could lead to the premature shutdown of some nuclear reactors.

Deregulation has resulted in utilities improving the performance of their reactors to record capacity, but there is no assurance this trend will continue.

Deregulation can have a material and adverse effect on our future earnings, cash flows, financial condition or results of operations.

Legal proceedings

We discuss any legal proceedings that we or our subsidiaries are a party to in notes 24 and 31 to the 2011 financial statements.

Investor information

Share capital

Our authorized share capital consists of:

- first preferred shares
- second preferred shares
- common shares
- one class B share.

Preferred shares

We do not currently have any preferred shares outstanding, but we can issue an unlimited number of first preferred or second preferred shares with no nominal or par value, in one or more series. The board must approve the number of shares, and the designation, rights, privileges, restrictions and conditions attached to each series of first or second preferred shares.

Preferred shares can carry voting rights, and they rank ahead of common shares and the class B share for receiving dividends and distributing assets if the company is liquidated, dissolved or wound up.

First preferred shares

Each series of first preferred shares ranks equally with the shares of other series of first preferred shares. First preferred shares rank ahead of second preferred shares, common shares and the class B share.

Second preferred shares

Each series of second preferred shares ranks equally with the shares of other series of second preferred shares. Second preferred shares rank after first preferred shares and ahead of common shares and the class B share.

Common shares

We can issue an unlimited number of common shares with no nominal or par value. Only holders of common shares have full voting rights in Cameco.

If you hold our common shares, you are entitled to vote on all matters that are to be voted on at any shareholder meeting, other than meetings that are only for holders of another class or series of shares. Each Cameco share you own represents one vote, except where noted below. As a holder of common shares, you are also entitled to receive any dividends that are declared by our board of directors.

Common shares rank *after* preferred shares with respect to the payment of dividends and the distribution of assets if the company is liquidated, dissolved or wound up, or any other distribution of our assets among our shareholders if we were to wind up our affairs.

Holders of our common shares have no pre-emptive, redemption, purchase or conversion rights for these shares. Except as described under *Ownership and voting restrictions,* non-residents of Canada who hold common shares have the same rights as shareholders who are residents of Canada.

As at February 9, 2012, we had 394,767,078 common shares outstanding. These were fully paid and non-assessable.

As of February 9, 2012, there were 8,442,385 stock options outstanding to acquire common shares of Cameco under the company's stock option plan.

In 2011, we granted the following stock options:

- March 1, 2011 - 1,580,069 stock options to acquire common shares of Cameco at an exercise price of $39.53

- July 1, 2011 - 50,000 stock options to acquire common shares of Cameco at an exercise price of $25.44.

Our articles of incorporation have provisions that restrict the issue, transfer and ownership of voting securities of Cameco (see *Ownership and voting restrictions* below).

Class B shares

The province of Saskatchewan holds our one class B share outstanding. It is fully paid and non-assessable.

The one class B share entitles the province to receive notices of and attend all meetings of shareholders, for any class or series.

The class B shareholder can only vote at a meeting of class B shareholders, and only as a class if there is a proposal to:

- amend Part 1 of Schedule B of the articles, which states that:
  - Cameco's registered office and head office operations must be in Saskatchewan
  - the vice-chairman of the board, chief executive officer (CEO), president, chief financial officer (CFO) and generally all of the senior officers (vice-presidents and above) must live in Saskatchewan
  - all annual meetings of shareholders must be held in Saskatchewan
- amalgamate, if it would require an amendment to Part 1 of Schedule B of the articles, or
- amend the articles in a way that would change the rights of class B shareholders.

The class B shareholder can request and receive information from us to determine whether or not we are complying with Part 1 of Schedule B of the articles.

The class B shareholder does not have the right to receive any dividends declared by Cameco. The class B share ranks after first and second preferred shares, but equally with common shareholders, with respect to the distribution of assets if the company is liquidated, dissolved or wound up. The class B shareholder has no pre-emptive, redemption, purchase or conversion rights with its class B share, and the share cannot be transferred.

Ownership and voting restrictions

The federal government established ownership restrictions when Cameco was formed so we would remain Canadian controlled. There are restrictions on issuing, transferring and owning Cameco common shares whether you own the shares as a registered shareholder, hold them beneficially or control your investment interest in Cameco directly or indirectly. These are described in the *Eldorado Nuclear Limited Reorganization and Divestiture Act* (Canada) (ENL Reorganization Act) and our company articles.

The following is a summary of the restrictions listed in our company articles.

Residents

A Canadian resident, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 25% of the votes that can be cast to elect directors.

Non-residents

A non-resident of Canada, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 15% of the total votes that can be cast to elect directors.

Voting restrictions

All votes cast at the meeting by non-residents, either beneficially or controlled directly or indirectly, will be counted and pro-rated collectively to limit the proportion of votes cast by non-residents to no more than 25% of the total shareholder votes cast at the meeting.

There have been instances in prior years, including 2011, when we have limited the counting of votes by non-residents of Canada at our annual meeting of shareholders to abide by this restriction. This has resulted in non-residents receiving less than one vote per share.

Enforcement

The company articles allow us to enforce the ownership and voting restrictions by:

- suspending voting rights
- forfeiting dividends and other distributions
- prohibiting the issue and transfer of Cameco shares
- requiring the sale or disposition of Cameco shares
- suspending all other shareholder rights.

To verify compliance with restrictions on ownership and voting of Cameco shares, we require existing shareholders, proposed transferees or other subscribers for voting shares to declare their residency, ownership of Cameco shares and other things relating to the restrictions. Nominees such as banks, trust companies, securities brokers or other financial institutions who hold the shares on behalf of beneficial shareholders need to make the declaration on their behalf.

We cannot issue or register a transfer of any voting shares if it would result in a contravention of the resident or non-resident ownership restrictions.

If we believe there is a contravention of our ownership restrictions based on any shareholder declarations filed with us, or our books and records or those of our registrar and transfer agent or otherwise, we can suspend all shareholder rights for the securities they hold, other than the right to transfer them. We can only do this after giving the shareholder 30 days notice, unless he or she has disposed of the holdings and we have been advised of this.

Understanding the terms

Please see our articles for the exact definitions of *associate*, *resident*, *non-resident*, *control*, and *beneficial ownership* which are used for the restrictions described above.

Other restrictions

The ENL Reorganization Act imposes some additional restrictions on Cameco. We must maintain our registered office and our head office operations in Saskatchewan. We are also prohibited from:

- creating restricted shares (these are generally defined as a participating share with restrictive voting rights)
- applying for continuance in another jurisdiction
- enacting articles of incorporation or bylaws that have provisions that are inconsistent with the ENL Reorganization Act.

We must maintain our registered office and head office operations in Saskatchewan under *the Saskatchewan Mining Development Corporation Reorganization Act*. This generally includes all executive, corporate planning, senior management, administrative and general management functions.

Credit ratings

Credit ratings provide an independent, professional assessment of a corporation's credit risk. They are *not* a comment on the market price of a security or suitability for an individual investor and are, therefore, not recommendations to buy, hold or sell our securities.

We provide rating agencies DBRS Limited (DBRS) and Standard & Poor's (S&P) with confidential, in-depth information to support the credit rating process.

The credit ratings assigned to our securities by external ratings agencies are important to our ability to raise capital at competitive pricing to support our business operations. Our investment grade credit ratings reflect the current financial strength of our company.

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.

We have two series of senior unsecured debentures outstanding:

- $300 million of debentures issued on September 16, 2005 that have an interest rate of 4.7% per year and mature September 16, 2015
- $500 million of debentures issued on September 2, 2009 that have an interest rate of 5.67% per year and mature September 2, 2019.

Although we frequently issued commercial paper in the past, we did not have any outstanding commercial paper at February 23, 2012. The table below shows the DBRS and S&P ratings of our commercial paper and senior unsecured debentures:

	DBRS[1]	S&P[2]
Commercial paper	**R-1 (low)**	**A-1 (low)[3]**
Senior unsecured debentures	**A (low)**	**BBB+**

[1] Current as of February 2012.

[2] Current as of December 2011.

[3] A-1 (low) is the Canadian National Scale Rating (the Global Scale Rating is A-2).

Commercial paper

Rating scales for commercial paper are meant to indicate the risk that a borrower will not fulfill its near-term debt obligations in a timely manner.

The table below explains the credit ratings of our commercial paper in more detail:

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

Senior unsecured debentures

Long-term debt rating scales are meant to indicate the risk that a borrower will not fulfill its full obligations, with respect to interest and principal, in a timely manner.

The table below explains the credit ratings of our senior unsecured debentures in more detail:

	Rating	Ranking
DBRS rates senior unsecured debentures by categories ranging from a high of *AAA* to a low of *D*	A (low)	• lower end of the A category • represents "satisfactory credit quality" • third highest of 10 available credit ratings
S&P rates senior unsecured debentures by categories ranging from a high of *AAA* to a low of *D*	BBB+	• higher end of the BBB category • represents "adequate protection parameters" • the fourth highest of 10 available credit ratings

Material contracts

We are required by law to describe our material contracts in this AIF (not including material contracts that we entered into as part of the ordinary course of business) that we:

- entered into in 2011 – there were none
- entered into before 2011 and remain in effect – there are two, which are described below.

Supplemental indentures

We entered into the *Third supplemental indenture* with CIBC Mellon Trust Company (CIBC Mellon) on September 16, 2005, relating to the issue of $300 million in unsecured debentures at an interest rate of 4.7% per year and due in 2015.

We entered into the *Fourth supplemental indenture* with CIBC Mellon on September 2, 2009, relating to the issue of $500 million in unsecured debentures at an interest rate of 5.67% and due in 2019.

See *Senior unsecured debentures*, above for more information about these debentures.

By law there are certain other contracts that must be described in an AIF, but we have not entered into any of these kinds of contracts.

Market for our securities

Our common shares are listed and traded on the Toronto Stock Exchange (under the symbol CCO) and the New York Stock Exchange (under the symbol CCJ).

We have a registrar and transfer agent in Canada (CIBC Mellon) and the US (Computershare) for our common shares:

Canada	Canadian Stock Transfer Company Inc.[1] P.O. Box 700, Station B Montreal, Quebec H3B 3K3	**US**	Computershare 480 Washington Blvd. Jersey City, New Jersey United States of America 07310

[1] Canadian Stock Transfer Company Inc. acts as the Administrative Agent for CIBC Mellon Trust Company.

Trading activity

The table below shows the high and low closing prices and trading volume for our common shares on the TSX in 2011.

2011	High ($)	Low ($)	Volume
January	41.91	36.87	22,972,985
February	44.28	39.34	22,711,991
March	40.18	27.70	73,486,731
April	30.15	26.38	26,641,592
May	29.67	25.20	28,454,407
June	28.25	22.64	25,794,461
July	27.05	23.91	23,221,933
August	25.52	20.45	35,007,134
September	23.25	18.28	26,249,525
October	22.87	17.61	31,322,225
November	22.17	17.25	34,440,340
December	19.95	17.60	19,292,596

Dividend policy

The board established a policy of paying quarterly dividends when we launched our initial public offering in 1991. It reviews the dividend policy from time to time in light of our financial position and other factors they consider relevant.

The table below shows the dividends per common share for the last three fiscal years. The board approved an increase in the annual dividend in December 2010 (starting in 2011) and in December 2009 (starting in 2010). Under the policy, in December 2011, the board approved an annual dividend of $0.40 per share (starting in 2012).

	2011	2010	2009
Cash dividends	$0.40	$0.28	$0.24

Governance

Directors

Director	Board committees	Principal occupation or employment
Daniel Camus Paris, France Director since 2011	Audit Safety, health and environment Human resources and compensation	Corporate director as of 2011 2005 to 2010 – Head of Strategy and International Activities of Electricité de France SA 2002 to 2010 – Group chief financial officer of Electricité de France SA
John Clappison Toronto, Ontario, Canada Director since 2006	Audit (Chair) Human resources and compensation	Corporate director as of 2006 1990 to December 2005 – managing partner of the Toronto office of PricewaterhouseCoopers LLP
Joe Colvin Santa Fe, New Mexico Director since 1999	Safety, health and environment (Chair) Nominating, corporate governance and risk	June 2011 to present – Past-President of American Nuclear Society June 2010 to June 2011 – President of American Nuclear Society February 2005 to present – Corporate director and president emeritus of the Nuclear Energy Institute
James Curtiss Brookeville, Maryland, USA Director since 1994	Human resources and compensation (Chair) Nominating, corporate governance and risk	April 2008 to present – principal of Curtiss law 1993 to March 2008 – lawyer, partner, Winston & Strawn LLP
Donald Deranger Prince Albert, Saskatchewan, Canada Director since 2009	Reserves oversight Safety, health and environment	2003 to present – Athabasca Vice Chief of the Prince Albert Grand Council 2001 to present – President of Points Athabasca Contracting LP
Tim Gitzel Saskatoon, Saskatchewan, Canada Director since 2011	None	July 2011 to present – President and CEO May 2010 to June 2011 – President January 2007 to May 2010 – Senior Vice-President and Chief Operating Officer June 2004 to January 2007 – Executive Vice-President, mining business unit, AREVA
James Gowans Toronto, Ontario, Canada Director since 2009	Reserves oversight Safety, health and environment Nominating, corporate governance and risk	January 2011 to present – Managing Director, Debswana Diamond Company March 2010 to December 2010 – COO and Chief Technical Officer of DeBeers SA April 2006 to December 2010 – CEO of DeBeers Canada Inc. 2002 to 2006 – Senior Vice-President and COO of PT Inco in Indonesia
Nancy Hopkins Saskatoon, Saskatchewan, Canada Director since 1992	Nominating, corporate governance and risk (Chair) Audit	1984 to present – Lawyer, partner, McDougall Gauley LLP (Gauley & Company merged with McDougall Ready to form McDougall Gauley as of January 2001)
Oyvind Hushovd Kristiansand S, Norway Director since 2003	Audit Human resources and compensation Reserves oversight	June 2005 to present – Corporate director May 2003 to May 2005 – Chairman and Chief Executive Officer of Gabriel Resources Ltd.
Anne McLellan Edmonton, Alberta, Canada Director since 2006	Human resources and compensation Nominating, corporate governance and risk Safety, health and environment	July 2006 to present – Distinguished Scholar in Residence at Alberta Institute for American Studies, University of Alberta June 2006 to present – Lawyer, counsel at Bennett Jones LLP 1993 to 2006 – cabinet minister in various portfolios with the Canadian government, most recently as Deputy Prime Minister of Canada from 2003 to 2006

Neil McMillan Saskatoon, Saskatchewan, Canada Director since 2002	Reserves oversight (Chair) Audit Human resources and compensation	March 2004 to present – President and Chief Executive Officer, Claude Resources Inc.
Victor Zaleschuk Calgary, Alberta, Canada Director since 2001	Reserves oversight	November 2001 to present – Corporate director

All of the directors are elected for a term of one year, and hold office until the next annual meeting unless he or she steps down, as required by corporate law.

Officers

Officer	Principal occupation or employment for past five years
Victor Zaleschuk Chair of the Board Calgary, Alberta, Canada	November 2001 to present – Corporate director
Tim Gitzel President and Chief Executive Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 May 2010 to June 2011 – President January 2007 to May 2010 – Senior Vice-President and Chief Operating Officer June 2004 to January 2007 – Executive Vice-President, mining business unit, AREVA
Gary Chad Senior Vice-President, Governance, Law and Corporate Secretary Saskatoon, Saskatchewan, Canada	Assumed current position January 2000
Grant Isaac Senior Vice-President and Chief Financial Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 July 2009 to July 2011 – Senior Vice-President, Corporate Services 2006 to 2009 – Dean of Edwards School of Business (formerly College of Commerce), University of Saskatchewan
Ken Seitz Senior Vice-President, Marketing, Exploration and Corporate Development Saskatoon, Saskatchewan, Canada	Assumed current position January 2011 2009 to December 2010 – Vice-President, Marketing Strategy and Administration 2006 to 2009 – Vice-President, Corporate Development and Power Generation
Robert Steane Senior Vice-President and Chief Operating Officer Saskatoon, Saskatchewan, Canada	Assumed current position May 2010 2007 to May 2010 – Vice-President, Major Projects 1999 to 2007 – Vice-President, Fuel Services
Alice Wong Senior Vice-President, Corporate Services Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 October 2008 to July 2011 – Vice-President, Safety, Health, Environment, Quality and Regulatory Relations May 2005 to September 2008 – Vice-President, Investor, Corporate & Government Relations

To our knowledge, the total number of common shares that the directors and officers as a group either: (i) beneficially owned; or (ii) exercised direction or control over, directly or indirectly, was 210,310 as at February 9, 2012. This represents less than 1% of our outstanding common shares.

To the best of our knowledge, none of the directors, executive officers or shareholders that either: (i) beneficially owned; or (ii) exercised direction or control of, directly or indirectly, over 10% of any class of our outstanding securities, nor their associates or affiliates, have any material interests in material transactions which have affected, or will materially affect, the company.

Other information about our directors and officers

None of our directors or officers, or a shareholder with significant holdings that could materially affect control of us, is or was a director or executive officer of another company in the past 10 years that:

- was the subject of a cease trade or similar order, or an order denying that company any exemption under securities legislation, for more than 30 consecutive days while the director or executive officer held that role with the company
- was involved in an event that resulted in the company being subject to one of the above orders after the director or executive officer no longer held that role with the company
- while acting in that capacity, or within a year of acting in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold the assets of that company.

None of them in the past 10 years:

- became bankrupt
- made a proposal under any legislation relating to bankruptcy or insolvency
- has been subject to or launched any proceedings, arrangement or compromise with any creditors, or
- had a receiver, receiver manager or trustee appointed to hold any of their assets.

None of them has ever been subject to:

- penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or
- any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

About the audit committee

Audit committee charter

See appendix A for a copy of the audit committee charter. You can also find a copy on our website (cameco.com/responsibility/governance/board_committees).

Composition of the audit committee

The committee is made up of five members: John Clappison (chair), Daniel Camus, Nancy Hopkins, Oyvind Hushovd and Neil McMillan. Each member is independent and financially literate using criteria that meet the standards of the Canadian Securities Administrators as set out in Multilateral Instrument 52-110.

Relevant education and experience

John Clappison, a corporate director, is the former managing partner of the Toronto office of PricewaterhouseCoopers LLP. He currently serves on three other publicly traded companies, and the boards of other private and not-for-profit organizations. Cameco's board has approved Mr. Clappison sitting on four audit committees of publicly traded companies, including Cameco. Mr. Clappison is a chartered accountant and a Fellow of the Institute of Chartered Accountants of Ontario.

Daniel Camus, a corporate director, is the former group chief financial officer and former head of strategy and international activities of Electricité de France SA (EDF), a France-based integrated energy operator active in the generation, distribution, transmission, supply and trading of electrical energy with subsidiaries around the world. He currently serves on the boards of four other publicly traded companies, on two of which he is a member of their audit committees and one of which he is the chair of the audit committee. Cameco's board has approved Mr. Camus sitting on four audit committees of publicly traded companies, including Cameco. Mr. Camus received his PhD in Economics

from Sorbonne University, an MBA in finance and economics from the Institute d'Études Politiques de Paris and a masters of economics degree from Nancy University in France.

Nancy Hopkins is a partner with the law firm of McDougall Gauley, LLP in Saskatoon where she concentrates her practice on corporate, commercial and tax law. She currently serves on two other publicly traded companies, the board of governors of the University of Saskatchewan, the board of the Saskatoon Airport Authority and the CPP Investment Board. She formerly served on the board of the Canadian Institute of Chartered Accountants. Ms. Hopkins has a Bachelor of Commerce degree and a Bachelor of Laws degree from the University of Saskatchewan.

Oyvind Hushovd, a corporate director, is the former Chair and Chief Executive Officer of Gabriel Resources Ltd., a Canadian-based precious metals exploration and development company, retiring in 2005. Prior to that he was the President and Chief Executive Officer of Falconbridge Limited from 1996 to 2002. He currently serves on the boards of two other publicly traded companies and three private companies. Mr. Hushovd received a Master of Economics and Business Administration degree from the Norwegian School of Business and a Master of Law degree from the University of Oslo.

Neil McMillan is the President and Chief Executive Officer of Claude Resources Inc., a gold mining and exploration company based in Saskatoon, Saskatchewan. Prior to joining Claude Resources Inc., Mr. McMillan worked for RBC Dominion Securities as a registered representative and the Saskatoon branch manager. He currently serves on the boards of two other publicly traded companies (including Claude Resources Inc.) and previously sat on the board of Atomic Energy Canada Ltd. Mr. McMillan received a Bachelor of Arts degree in History and Sociology from the University of Saskatchewan.

Auditors' fees

The table below shows the fees we paid to the external auditors for services in 2011 and 2010:

	2011 ($)	% of total fees (%)	2010 ($)	% of total fees (%)
Audit fees				
Cameco	1,773,600	61.4	1,697,700	62.6
Subsidiaries	400,700	13.9	256,200	9.5
Total audit fees	2,174,300	75.3	1,953,900	72.1
Audit-related fees				
Translation services	–	–	44,500	1.7
Accounting advisory	195,100	6.8	273,400	10.1
Pensions and other	21,000	0.7	20,000	0.7
Total audit-related fees	216,100	7.5	337,900	12.5
Tax fees				
Compliance	62,500	2.2	199,200	7.3
Planning and advice	433,400	15.0	219,500	8.1
Total tax fees	495,900	17.2	418,700	15.4
All other fees	–	–	–	–
Total fees	**2,886,300**	**100.0**	**2,710,500**	**100.0**

Approving services

The audit committee must pre-approve all services the external auditors will provide to make sure they remain independent. This is according to our audit committee charter and consistent with our corporate governance practices. The audit committee pre-approves services up to a specific limit. If we expect the fees to exceed the limit, or the external auditors to provide new audit or non-audit services that have not been pre-approved in the past, then

this must be pre-approved separately.

Any service that is not generally pre-approved must be approved by the audit committee before the work is carried out, or by the committee chair, or board chair in his or her absence, as long as the proposed service is presented to the full audit committee at its next meeting.

The committee has adopted a written policy that describes the procedures for implementing these principles.

Interest of experts

Our auditor is KPMG LLP, independent chartered accountants, who have audited our 2011 financial statements.

KPMG LLP is independent within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Saskatchewan.

The individuals who are qualified persons for the purposes of NI 43-101 are listed under *Mineral reserves and resources* starting on page 73. As a group, they beneficially own, directly or indirectly, less than 1% of any class of the outstanding securities of Cameco and our associates and affiliates.

Appendix A

Audit committee of the board of directors
Mandate

Purpose

The primary purpose of the audit committee (committee) is to assist the board of directors (board) in fulfilling its oversight responsibilities for (a) the accounting and financial reporting processes, (b) the internal controls, (c) the external auditors, including performance, qualifications, independence, and their audit of the corporation's financial statements, (d) the performance of the corporation's internal audit function, (e) risk management of financial risks as delegated by the board, (f) the corporation's process for monitoring compliance with laws and regulations (other than environmental and safety laws) and its code of conduct and ethics, and (g) prevention and detection of fraudulent activities. The committee shall also prepare such reports as required to be prepared by it by applicable securities laws.

In addition, the committee provides an avenue for communication between each of the internal auditor, the external auditors, management, and the board. The committee shall have a clear understanding with the external auditors that they must maintain an open and transparent relationship with the committee and that the ultimate accountability of the external auditors is to the board and the committee, as representatives of the shareholders. The committee, in its capacity as a committee of the board, subject to the requirements of applicable law, is directly responsible for the appointment, compensation, retention, and oversight of the external auditors.

The committee has the authority to communicate directly with the external auditors and internal auditor.

The committee shall make regular reports to the board concerning its activities and in particular shall review with the board any issues that arise with respect to the quality or integrity of the corporation's financial statements, the performance and independence of the external auditors, the performance of the corporation's internal audit function, or the corporation's process for monitoring compliance with laws and regulations other than environmental and safety laws.

Composition

The board shall appoint annually, from among its members, a committee and its chair. The committee shall consist of at least three members and shall not include any director employed by the corporation.

Each committee member will be independent pursuant to the standards for independence adopted by the board.

Each committee member shall be financially literate with at least one member having accounting or related financial expertise, using the terms defined as follows:

"*Financially literate*" means the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the corporation's financial statements; and

"*Accounting or related financial expertise*" means the ability to analyse and interpret a full set of financial statements, including the notes attached thereto, in accordance with Canadian generally accepted accounting principles.

In addition, where possible, at least one member of the committee shall qualify as an "audit committee financial expert" within the meaning of applicable securities law.

Members of the committee may not serve on the audit committees of more than three public companies (including Cameco's) without the approval of the board.

Meetings

The committee will meet at least four times annually and as many additional times as the committee deems necessary to carry out its duties effectively. The committee will meet separately in private with the external auditors, the internal auditor and management at each regularly scheduled meeting.

A majority of the members of the committee shall constitute a quorum. No business may be transacted by the committee except at a meeting of its members at which a quorum of the committee is present.

The committee may invite such officers, directors and employees of the corporation as it may see fit from time to time to attend at meetings of the committee and assist thereat in the discussion and consideration of any matter.

A meeting of the committee may be convened by the chair of the committee, a member of the committee, the external auditors, the internal auditor, the chief executive officer or the chief financial officer. The secretary, who shall be appointed by the committee, shall, upon direction of any of the foregoing, arrange a meeting of the committee. The committee shall report to the board in a timely manner with respect to each of its meetings.

Duties and responsibilities

To carry out its oversight responsibilities, the committee shall:

Financial reporting process

1. Review with management and the external auditors any items of concern, any proposed changes in the selection or application of major accounting policies and the reasons for the change, any identified risks and uncertainties, and any issues requiring management judgement, to the extent that the foregoing may be material to financial reporting.
2. Consider any matter required to be communicated to the committee by the external auditors under applicable generally accepted auditing standards, applicable law and listing standards, including the external auditors' report to the committee (and management's response thereto) on: (a) all critical accounting policies and practices used by the corporation; (b) all material alternative accounting treatments of financial information within generally accepted accounting principles that have been discussed with management, including the ramifications of the use of such alternative treatments and disclosures and the treatment preferred by the external auditors; and (c) any other material written communications between the external auditors and management.
3. Require the external auditors to present and discuss with the committee their views about the quality, not just the acceptability, of the implementation of generally accepted accounting principles with particular focus on accounting estimates and judgements made by management and their selection of accounting principles.
4. Discuss with management and the external auditors (a) any accounting adjustments that were noted or proposed (i.e. immaterial or otherwise) by the external auditors but were not reflected in the financial statements, (b) any material correcting adjustments that were identified by the external auditors in accordance with generally accepted accounting principles or applicable law, (c) any communication reflecting a difference of opinion between the audit team and the external auditors' national office on material auditing or accounting issues raised by the engagement, and (d) any "management" or "internal control" letter issued, or proposed to be issued, by the external auditors to the corporation.
5. Discuss with management and the external auditors any significant financial reporting issues considered during the fiscal period and the method of resolution. Resolve disagreements between management and the external auditors regarding financial reporting.
6. Review with management and the external auditors (a) any off-balance sheet financing mechanisms being used by the corporation and their effect on the corporation's financial statements and (b) the effect of regulatory and accounting initiatives on the corporation's financial statements, including the potential impact of proposed initiatives.

7. Review with management and the external auditors and legal counsel, if necessary, any litigation, claim or other contingency, including tax assessments, that could have a material effect on the financial position or operating results of the corporation, and the manner in which these matters have been disclosed or reflected in the financial statements.

8. Review with the external auditors any audit problems or difficulties experienced by the external auditors in performing the audit, including any restrictions or limitations imposed by management, and management's response. Resolve any disagreements between management and the external auditors regarding these matters.

9. Review the results of the external auditors' audit work including findings and recommendations, management's response, and any resulting changes in accounting practices or policies and the impact such changes may have on the financial statements.

10. Review and discuss with management and the external auditors the audited annual financial statements and related management discussion and analysis, make recommendations to the board with respect to approval thereof, before being released to the public, and obtain an explanation from management of all significant variances between comparable reporting periods.

11. Review and discuss with management and the external auditors all interim unaudited financial statements and related interim management discussion and analysis and make recommendations to the board with respect to the approval thereof, before being released to the public.

12. Obtain confirmation from the chief executive officer and the chief financial officer (and considering the external auditors' comments, if any, thereon) to their knowledge:

    (a) that the audited financial statements, together with any financial information included in the annual MD&A and annual information form, fairly represent in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings; and

    (b) that the interim financial statements, together with any financial information included in the interim MD&A, fairly represent in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings.

13. Review news releases to be issued in connection with the audited annual financial statements and related management discussion and analysis and the interim unaudited financial statements and related interim management discussion and analysis, before being released to the public. Discuss the type and presentation of information to be included in news releases (paying particular attention to any use of "pro-forma" or "adjusted" non-GAAP, information).

14. Review any news release, before being released to the public, containing earnings guidance or financial information based upon the corporation's financial statements prior to the release of such statements.

15. Review the appointment of the chief financial officer and have the chief financial officer report to the committee on the qualifications of new key financial executives involved in the financial reporting process.

16. Consult with the human resources and compensation committee on the succession plan for the chief financial officer and controller. Review the succession plans in respect of the chief financial officer and controller.

Internal Controls

1. Receive from management a statement of the corporation's system of internal controls over accounting and financial reporting.

2. Consider and review with management, the internal auditor and the external auditors, the adequacy and effectiveness of internal controls over accounting and financial reporting within the corporation and any proposed significant changes in them.

3. Consider and discuss the scope of the internal auditors and external auditors review of the corporation's internal

controls, and obtain reports on significant findings and recommendations, together with management responses.

4. Discuss, as appropriate, with management, the external auditors and the internal auditor, any major issues as to the adequacy of the corporation's internal controls and any special audit steps in light of material internal control deficiencies.

5. Review annually the disclosure controls and procedures, including (a) the certification timetable and related process and (b) the procedures that are in place for the review of the corporation's disclosure of financial information extracted from the corporation's financial statements and the adequacy of such procedures. Receive confirmation from the chief executive officer and the chief financial officer of the effectiveness of disclosure controls and procedures, and whether there are any significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the corporation's ability to record, process, summarize and report financial information or any fraud, whether or not material, that involves management or other employees who have a significant role in the corporation's internal control over financial reporting. In addition, receive confirmation from the chief executive officer and the chief financial officer that they are prepared to sign the annual and quarterly certificates required by applicable securities law.

6. Review management's annual report and the external auditors' report on the assessment of the effectiveness of the corporation's internal control over financial reporting.

7. Receive a report, at least annually, from the reserves oversight committee of the board on the corporation's mineral reserves.

External Auditors

(i) External Auditors' Qualifications and Selection

1. Subject to the requirements of applicable law, be solely responsible to select, retain, compensate, oversee, evaluate and, where appropriate, replace the external auditors, who must be registered with agencies mandated by applicable law. The committee shall be entitled to adequate funding from the corporation for the purpose of compensating the external auditors for completing an audit and audit report.

2. Instruct the external auditors that:

   (a) they are ultimately accountable to the board and the committee, as representatives of shareholders; and

   (b) they must report directly to the committee.

3. Ensure that the external auditors have direct and open communication with the committee and that the external auditors meet regularly with the committee without the presence of management to discuss any matters that the committee or the external auditors believe should be discussed privately.

4. Evaluate the external auditors' qualifications, performance, and independence. As part of that evaluation:

   (a) at least annually, request and review a formal report by the external auditors describing: the firm's internal quality-control procedures; any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with any such issues; and (to assess the auditors' independence) all relationships between the external auditors and the corporation, including the amount of fees received by the external auditors for the audit services and for various types of non-audit services for the periods prescribed by applicable law; and

   (b) annually review and confirm with management and the external auditors the independence of the external auditors, including the extent of non-audit services and fees, the extent to which the compensation of the audit partners of the external auditors is based upon selling non-audit services, the timing and process for implementing the rotation of the lead audit partner, reviewing partner and other partners providing audit services for the corporation, whether there should be a regular rotation of the audit firm itself, and whether

there has been a “cooling off” period of one year for any former employees of the external auditors who are now employees with a financial oversight role, in order to assure compliance with applicable law on such matters; and

(c) annually review and evaluate senior members of the external audit team, including their expertise and qualifications. In making this evaluation, the audit committee should consider the opinions of management and the internal auditor.

Conclusions on the independence of the external auditors should be reported to the board.

5. Review and approve the corporation’s policies for the corporation’s hiring of employees and former employees of the external auditors. Such policies shall include, at minimum, a one-year hiring “cooling off” period.

(ii) Other Matters

6. Meet with the external auditors to review and approve the annual audit plan of the corporation’s financial statements prior to the annual audit being undertaken by the external auditors, including reviewing the year-to-year co-ordination of the audit plan and the planning, staffing and extent of the scope of the annual audit. This review should include an explanation from the external auditors of the factors considered by the external auditors in determining their audit scope, including major risk factors. The external auditors shall report to the committee all significant changes to the approved audit plan.

7. Review and approve the basis and amount of the external auditors’ fees with respect to the annual audit in light of all relevant matters.

8. Review and pre-approve all audit and non-audit service engagement fees and terms in accordance with applicable law, including those provided to the subsidiaries of the corporation by the external auditors or any other person in its capacity as external auditors of such subsidiary. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorised to pre-approve any audit or non-audit service engagement fees and terms. At the next committee meeting, the chair shall report to the committee any such pre-approval given. Establish and adopt procedures for such matters.

Internal Auditor

1. Review and approve the appointment or removal of the internal auditor.

2. Review and discuss with the external auditors, management, and internal auditor the responsibilities, budget and staffing of the corporation’s internal audit function.

3. Review and approve the mandate for the internal auditor and the scope of annual work planned by the internal auditor, receive summary reports of internal audit findings, management's response thereto, and reports on any subsequent follow-up to any identified weakness.

4. Ensure that the internal auditor has direct and open communication with the committee and that the internal auditor meets regularly with the committee without the presence of management to discuss any matters that the committee or the internal auditor believe should be discussed privately, such as problems or difficulties which were encountered in the course of internal audit work, including restrictions on the scope of activities or access to required information, and any disagreements with management.

5. Review and discuss with the internal auditor and management the internal auditor’s ongoing assessments of the corporation’s business processes and system of internal controls.

6. Review the effectiveness of the internal audit function, including staffing, organizational structure and qualifications of the internal auditor and staff.

Compliance

1. Monitor compliance by the corporation with all payments and remittances required to be made in accordance with applicable law, where the failure to make such payments could render the directors of the corporation personally liable.
2. The receipt of regular updates from management regarding compliance with laws and regulations and the process in place to monitor such compliance, excluding, however, legal compliance matters subject to the oversight of the safety, health and environment committee of the board. Review the findings of any examination by regulatory authorities and any external auditors' observations relating to such matters.
3. Establish and oversee the procedures in the code of conduct and ethics policy to address:

   (a) the receipt, retention and treatment of complaints received by the corporation regarding accounting, internal accounting or auditing matters; and

   (b) confidential, anonymous submissions by employees of concerns regarding questionable accounting and auditing matters.

   Receive periodically a summary report from the senior vice-president governance, law and corporate secretary on such matters as required by the code of conduct and ethics.
4. Monitor management's implementation of the code of conduct and ethics and the international business conduct policy and review compliance therewith by, among other things, obtaining an annual report summarising statements of compliance by employees pursuant to such policies and reviewing the findings of any investigations of non-compliance. Periodically review the adequacy and appropriateness of such policies and make recommendations to the board thereon.
5. Monitor management's implementation of the anti-fraud policy; and review compliance therewith by, among other things, receiving reports from management on:

   (a) any investigations of fraudulent activity;

   (b) monitoring activities in relation to fraud risks and controls; and

   (c) assessments of fraud risk.

   Periodically review the adequacy and appropriateness of the anti-fraud policy and make recommendations to the board thereon.
6. Review all proposed related party transactions and situations involving a director's, senior officer's or an affiliate's potential or actual conflict of interest that are not required to be dealt with by an "independent committee" pursuant to securities law rules, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorised to review all such transactions and situations. At the next committee meeting, the chair shall report the results of such review. Ensure that political and charitable donations conform with policies and budgets approved by the board.
7. Monitor management of hedging, debt and credit, make recommendations to the board respecting policies for management of such risks, and review the corporation's compliance therewith.
8. Approve the review and approval process for the expenses submitted for reimbursement by the chief executive officer.
9. Oversee management's mitigation of material risks within the committee's mandate and as otherwise assigned to it by the nominating, corporate governance and risk committee.

Organizational matters

1. The procedures governing the committee shall, except as otherwise provided for herein, be those applicable to the board committees as set forth in Part 7 of the General Bylaws of the corporation.
2. The members and the chair of the committee shall be entitled to receive remuneration for acting in such capacity as the board may from time to time determine.
3. The committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to:

   (a) select, retain, terminate, set and approve the fees and other retention terms of special or independent counsel, accountants or other experts, as it deems appropriate; and

   (b) obtain appropriate funding to pay, or approve the payment of, such approved fees;

   without seeking approval of the board or management.
4. Any member of the committee may be removed or replaced at any time by the board and shall cease to be a member of the committee upon ceasing to be a director. The board may fill vacancies on the committee by appointment from among its members. If and whenever a vacancy shall exist on the committee, the remaining members may exercise all its powers so long as a quorum remains in office. Subject to the foregoing, each member of the committee shall remain as such until the next annual meeting of shareholders after that member's election.
5. The committee shall annually review and assess the adequacy of its mandate and recommend any proposed changes to the nominating, corporate governance and risk committee for recommendation to the board for approval.
6. The committee shall participate in an annual performance evaluation, the results of which will be reviewed by the board.
7. The committee shall perform any other activities consistent with this mandate, the corporation’s governing laws and the regulations of stock exchanges, as the committee or the board deems necessary or appropriate.