



2019

# Press Kit

Orano Canada Inc.



orano

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Saskatoon Corporate Office

## Message from Orano Canada's Communications Department

Orano's Communications Department plays a key role in managing the company's internal and external communication activities, community investment initiatives and public relations; we are a link between Orano and our stakeholders throughout Saskatchewan and Canada.

If you require more information on Orano's operations and activities beyond this Press Kit, or if you would like to access media assets such as Orano logos, photos, videos, publications, press releases, advertisements, or FAQs, visit our website at [www.oranocanada.com](http://www.oranocanada.com). We are also available for interviews or any follow-up questions you may have through the contact information below. **We look forward to hearing from you!**

Véronique Loewen  
Communications Manager, Orano Canada Inc.



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**Orano Canada Saskatoon Employees**

## **Orano Canada Executive Management Team**

**Pierre Hardouin** - Vice President, Finance & Chief Financial Officer

**Dale Huffman** - Vice President, Health, Safety, Environment & Regulatory Relations

**Patrick Ledru** - Vice President, Exploration

**Vincent Martin** - President and Chief Executive Officer

**Eric Pacquet** - Vice President, Operations and Projects

**Tammy Van Lambalgen** - Vice President, Corporate Affairs & General Counsel



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## McClean Lake Operation

Northern Saskatchewan

## Company History

### Orano Canada Inc.

Headquartered in Saskatoon, Saskatchewan, Orano Canada (Orano) is a leading producer of uranium, accounting for the processing of over half of the uranium concentrate produced in Canada in 2017. Today, Orano employs about **450 people** in Saskatchewan.

Orano has been exploring for uranium, developing uranium mines and producing uranium concentrate in Canada for **more than 55 years**. In 1969, Orano discovered the Cluff Lake uranium orebody in the western Athabasca Basin of northern Saskatchewan. By 1980, operations began at the newly built mine and mill. The mine closed in 2002 and has since been decommissioned.

In 1995, Orano began mining at the McClean Lake site while also starting construction on its uranium processing mill, which opened in 1999. In 2010, the mill was placed under care and maintenance and by 2012, upgrade and expansion construction work began. In October 2014, the McClean Lake mill restarted with the processing of all ore from the newly opened high-grade Cigar Lake mine, which was developed after the discovery of its orebody by Orano in 1981. Orano is the operator of the McClean Lake mill and a major partner in the Cigar Lake, McArthur River and Key Lake operations in northern Saskatchewan.

### > Key Figures

- **130 employees** in Saskatoon and **320** at McClean Lake
- **115 million** pounds of uranium produced at McClean Lake since 1999
- **45** exploration projects throughout Saskatchewan (operated and in partnerships)





**Orano Headquarters**  
Paris, France

## Orano Group

### > Key Figures

- **16,000** employees worldwide
- **Top 3** worldwide in all uranium activities
- **14%** of the world's uranium production

**Orano Canada Inc. is a subsidiary of the multinational group, Orano.**

Orano transforms nuclear materials so that they can be used to support the development of society, first and foremost in the field of energy.

The group offers products and services with high added value throughout the entire nuclear fuel cycle, from raw materials to waste treatment. Its activities, from mining to dismantling, as well as in conversion, enrichment, recycling, logistics and engineering, contribute to the production of low carbon electricity.

Orano and its **16,000** employees bring to bear their expertise and their mastery of cutting-edge technology, as well as their permanent search for innovation and unwavering dedication to safety, to serve their customers worldwide. **Orano, giving nuclear energy its full value.**

## Uranium Market

In recent years, the uranium market has been challenging, with the uranium spot price declining significantly to lows not seen since 2004. Nevertheless, the market is expected to grow in the long term, with **25% higher expected demand** in 2025 compared to 2015. The expected rise in market prices will enable new projects to be launched.





**Mill Offices**  
McCLean Lake Operation

## Ownership

Orano is the majority owner and operator of the McClean Lake Operation, the Midwest Project, and the Shea Creek exploration project, amongst others in Saskatchewan's Athabasca Basin. Orano also holds significant stakes in the Cigar Lake mine, McArthur River mine, and Key Lake mill, all part-owned and operated by joint-venture partner, Cameco Corporation.

Orano's mining activities make a significant contribution to the economy of Saskatchewan, generating more than **38 million dollars** in taxes and royalties in 2018. In 2018, Orano also purchased nearly **81 million dollars** in goods and services from Saskatchewan based businesses, representing over **73%** of its spending.



### **Orano's Major Exploration Sites, Mines & Mills**

- 1. McClean Lake** | Mill & Mine site (operator, 70% ownership)
- 2. Midwest Project** | Future Mine Project (operator, 69% ownership)
- 3. Shea Creek Project** | Exploration Project (operator, 51% ownership)
- 4. Cigar Lake** | Mine and Exploration Site (37% ownership)
- 5. McArthur River** | Mine (30% ownership)
- 6. Key Lake** | Mill (17% ownership)
- 7. Cluff Lake** | Decommissioned Mine (100% ownership)





**Athabasca Basin**  
Northern Saskatchewan

## Exploration

Exploration represents the future of Orano's operations; it is the first step in the development of uranium mines. In working towards this future, each year, our exploration team invests countless hours in the field, surveying by air and ground, line cutting, drilling, collecting data, and reviewing and logging drill core in the quest to discover the next economical deposit.

**20%**

**Five hundred times** more common than gold, uranium is found nearly everywhere on Earth. The highest known concentrations – with some ore grades averaging **over 20% uranium** – are found in northern Saskatchewan's Athabasca Basin where the majority of Orano's uranium exploration

activities take place. Orano's active land holdings in Saskatchewan cover more than **450,000 hectares** of land.

Orano currently operates **35 exploration projects** including major sites such as Shea Creek and Midwest. Orano is partnered in a further **19 joint venture projects**. These deposits have helped make Canada a world leader in uranium production and have created significant economic benefits for Canadians.

Although historical deposits were found near the surface, today our targets are buried deep – **several hundred metres** underground. Exploration, like mining, is a lengthy process. Some of Orano's projects have been explored for over thirty years while others are recent acquisitions. Locating new deposits today enables Orano to supply tomorrow's fuel for clean energy production around the world.





**Solvent Extraction Circuit**  
McClean Lake Mill

## Operations

**McClean Lake**, Orano's flagship operation, is located in northern Saskatchewan's Athabasca Basin over 750 kilometres north-east of Saskatoon. The operation boasts the most technologically advanced uranium mill in the world for the processing of high-grade uranium ore without dilution.



The McClean Lake mill can process uranium ore grades **over 100 times** the world's average grade, producing over **18 million pounds** of uranium concentrate in 2018. Orano has also operated several open-pit uranium mines at McClean Lake, and is evaluating future mines at and near the site.

**Ore grades:  
100x world  
average**

The McClean Lake mill has a total annual production capacity of **24 million pounds** of uranium ore concentrate. Three-quarters of the mill's capacity is dedicated to processing all ore from the **Cigar Lake** mine and the remainder is set aside for potential new ore from McClean Lake and other nearby uranium deposits in the future. The Cigar Lake mine is located 80 kilometres from McClean Lake.

In 2018, Orano's share of uranium concentrate production from the **McArthur River mine and Key Lake mill** tandem operation totaled **over 47,700 pounds**, a sharp decrease from previous years due to the suspension of their operations in 2018.



Together, the Cigar Lake/McClean Lake and McArthur River/Key Lake operations are the **largest and highest-grade uranium producers in the world.**





**Nature Reclaiming the Area**  
Cluff Lake Decommissioned Site

## Decommissioning

At Orano, we have the end in mind from the very beginning; decommissioning plans are put in place at the onset of new projects.

We are meeting the standard for modern mine decommissioning with our former **Cluff Lake Operation** – the first uranium mine site of its era to be decommissioned. Opening in 1980, the mine was an integral part of northern Saskatchewan for nearly a quarter century, producing over **62 million pounds** of uranium concentrate and providing about **4,000 person years** of company employment, largely to local communities' members.



**640,000 trees**

In 2002, the mine reached the end of its uranium production and decommissioning began. Since 2013, access to the site is not restricted and Orano no longer occupies the site full-time. During the site reclamation, nearly 640,000 indigenous trees were planted with help from local residents. Trees and grass continue to establish, blending the former mining area back into the surrounding natural landscape.

The area continues to be monitored and inspected regularly. With continued and strong environmental performance, Orano will eventually transition its monitoring program to a long-term institutional control program under the direction of the province of Saskatchewan.





**Environmental Sampling**  
McClellan Lake Operation

## Health, Safety & Environment

From exploration to decommissioning – health, safety, and environmental protection is considered every step of the way. Protecting workers, the environment and neighbouring communities are fundamental principles guiding Orano's activities.

Orano's exploration department and the McClellan Lake Operation are certified to the **ISO 14001** Environmental Management and the **ISO 45001** Safety Management international standards.

McClellan Lake strives to maintain low rates of lost-time accidents through a wide range of safety-related programs, training and by fostering safety culture. Worker radiation doses are continually monitored and remain well below the regulatory limit, demonstrating the effectiveness of the radiation protection program and of the mill design to process high ore grades. Extensive monitoring programs at the operation include regular sampling of air, water, land, plants and animals on site and downstream.

### **Environmental Monitoring at McClellan Lake:**

**323** Sample locations



**16** Environment professionals





**SABRE R&D Project**  
McClellan Lake Operation

## Research and Development

Mineral exploration is based on the scientific knowledge of when, how, where and why metals have been concentrated in the earth to a grade high enough to make a deposit. To define exploration targets, Orano's teams rely on a variety of information that our geophysicists, geologists, and geochemists are able to interpret and express in terms of potential for new discoveries. Our exploration teams' efforts in Research and Development are aimed at improving our ability to process this information.

To remain a world leader in the discovery of uranium deposits, Orano's teams also use innovative exploration methods, as well as the implementation of new skills and techniques, such as advanced geographic information systems, that provide opportunities to lead us toward success.

Orano is developing the **Surface Access Borehole Resource Extraction (SABRE)** mining method, which uses a high-pressure water jet placed at the bottom of the drill hole to extract ore from the surface. Through a series of tests with this new cutting-edge mining method, Orano is evaluating its potential for future mining operations. SABRE would allow Orano to access deposits from the surface using a small footprint, hence limiting potential environmental impact.





**Metallurgy Lab**  
McClellan Lake Mill

## Employee Engagement

Orano offers a variety of rewarding career opportunities in many fields such as engineering, environment, geology, metallurgy, skilled trades and many more. Whether at the McClellan Lake Operation, at our exploration camps, or in our Saskatoon and La Ronge offices, we strive to provide our employees with an enriching workplace.

Orano is committed to creating employment opportunities for workers from northern Saskatchewan. At McClellan Lake, **over 51% of employees** reside in northern communities and **48%** are self-declared Indigenous people. The week-in/week-out schedule enables employees and their families to remain in their home communities, which in turn benefit from an increased economic base and valuable trade and professional skills. Through the support of innovative training programs, Orano builds opportunities for both present and prospective employees.

## Community Investment

At Orano, we believe in investing in the communities near our operations and activities, focusing on education and literacy, health and wellness, and cultural programming. As part of this commitment, each year, Orano's community investment program supports collaboration agreements, educational programs, scholarships and non-profit organizations.

Aside from the contributions made through the Ya'Thi Nene Collaboration Agreement with seven Athabasca Basin communities, the Pinehouse and English River First Nation agreements, and the Six Rivers Fund for northern Saskatchewan, in 2017, Orano's community investment program contributed nearly **\$489,000** to non-profit organizations and community events in Saskatchewan.





**Ya'thi Néné Science & Culture Camp**  
Athabasa Sand Dunes Provincial Park

## Dialogue & Transparency

Orano works proactively to engage with the people who live closest to our activities.

As part of our commitment to transparent and open communication, Orano representatives regularly travel throughout northern Saskatchewan, sharing information and discussing concerns with community members and leaders. Orano's northern affairs office in La Ronge, Saskatchewan and its additional community liaisons officers in three other communities provide residents with a direct link to Orano. Through our community engagement program, residents become familiar with our activities, environmental, health and safety policies and performance, and possible job and contracting opportunities.



We also maintain dialogue and transparency through the Collaboration Agreements signed with the Northern Village of Pinehouse, the English River First Nation and the seven Athabasca Communities through the Ya'Thi Nene Agreement. These agreement ensure mutually beneficial partnerships within the five pillars of workforce development, business development, community engagement, environmental stewardship and community investment.

In keeping with our commitment to open communications and public disclosure, Orano regularly updates our Incident Notification Report, which can be found on our website at [www.oranocanada.com](http://www.oranocanada.com). The report notifies the public of incidents, which may be of interest to them, remedial actions undertaken, and their potential effect on health, safety, or the environment.





[www.oranocanada.com](http://www.oranocanada.com)

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