

— Alberta's Natural Resources —

MINING

CAREERS & FUTURES

As we study the future of mining in Alberta, we know that our province relies heavily on this sector and there are many current and 'tomorrow' career opportunities. Alberta's planned phase out of coal mined for electricity by 2030 will have an impact but we mine many different minerals in Alberta. With the ever-increasing use of technology, new innovations, and as the need for mine reclamation grows, mining will be a lasting part of Alberta's future.

Careers & Futures

Mining touches every Albertan's life, whether we realize it or not. Whether it is the vehicle you came to school in this morning (made from steel and aluminum and glass); the metal in your smartphone; and in Alberta much of the electricity you are using right now - all of these have mining in common.

Mining has a long history in our province. Alberta's Indigenous peoples mined bitumen ore along the banks along the Athabasca river to waterproof canoes and many of our early mines were dug by the early 1900's.

Today many thousands of Albertans depend on mining for their careers. Mining careers are many and diverse. From math-and-science intensive mining engineering and geophysics, to heavy hauler truck drivers, not to mention nurses, camp chefs and

computer scientists just to name a few. As new technologies advance, and as the current generation begins to retire, there will be a demand for engineers, scientists, environmentalists and technologists to lead mining in Alberta.

Alberta is part of the Western Canada Sedimentary Basin - that means there are sediments, minerals, oil and natural gas under our feet. We've discovered gemstones, even gold and diamonds in our province - Who knows what's next? As technology advances, as new products replace old ones, there is a growing demand for engineers, scientists, environmental specialists, technologists and all the supporting careers to lead mining in Alberta. Pursuing careers in mining is one great way to ensure the future of mining is done properly, safely and environmentally responsibly.



Machario, Wikipedia Commons



Post Secondary Opportunities

University of Alberta - School of Mining and Petroleum Engineering; Faculty of Science (Geology)

Northern Alberta Institute of Technology (NAIT) - Geological Technology

Southern Alberta Institute of Technology (SAIT) - Geomatics Engineering Technology

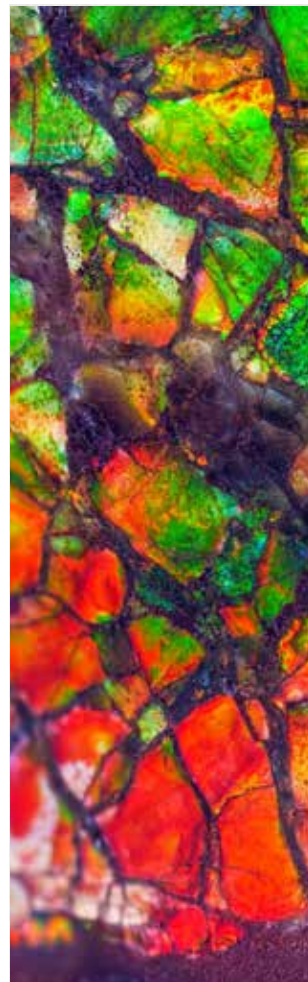
Keyano Collage - Haul Truck Operator Program

These are just a few options - remember there are many other engineering, technology, environmental, trades and support careers related to mining in Alberta.

MINING DISCOVERIES

It is well known that in Alberta, we have oil, natural gas, and coal that we use to produce energy and make a lot of different products. We often call these three things fossil fuels. There is a reason for that - oil, natural gas and coal were formed around the same time as fossils!

In fact, mining operations have led to some amazing dinosaur fossil discoveries in Alberta. In 2011, oil sands mining in Fort McMurray led to the discovery (and protection) of a nearly intact nodosaur now called Borealopelta. Borealopelta was a 6m long herbivore that paleontologists at the Royal Terrell Museum estimate roamed on what is now Alberta about 110 million years ago.



All that glitters...

Did you know that Alberta mines gemstones - those minerals prized for their beauty, and often the feature of very expensive jewelry?

Ammolite is a newly discovered gemstone that is found in Alberta - with most of the world's ammolite being mined near Lethbridge.

While you probably haven't heard of **kimberlite** - you've probably heard of a gemstone that is sometimes (but not always) contained inside kimberlite rock - **diamonds!** Kimberlite is also mined in areas across central and northern Alberta.



Mining and Indigenous People Fort McKay Case Study

A major employer in Alberta's oil sands mining is the **Fort McKay Group of Companies**. This large company is entirely owned by the Fort McKay First Nation and employs more than 1000 Indigenous and non-Indigenous people in the Wood Buffalo region. The company takes advantage of the First Nation's proximity to the oil sands and provides services in mining, reclamation, camp operations, vehicle and fuel services. The company focuses its attention on providing employment opportunities for members of the Fort McKay First Nation, and strives to a minimum 20% First Nations composition of its workforce.



CAREER DEEP DIVE

Whether you are the outdoors type, or someone who would rather work on a computer until 2 am - whether you're a math wizard or can take anything apart and put it back together again - whether you know all about dinosaurs, or just like to skim rocks across a lake - there is an opportunity for a career in mining.

If you want to be involved in the planning and operations of mines, you're going to need to go to college or university - and we won't lie to you...you're going to need to be good at science and math. If that's you, fantastic! If not, well, there are lots of connected careers that support the engineers, geologists and other scientists in their work. And as you've seen throughout this poster series, environmental work and mining goes hand-in-hand. Why not do a google search on mining in Canada - here's a great head start (we like the quiz!)

<https://www.mihr.ca/careers>



Did you know?



Did you know that we have gold in Alberta? You can even mine for it yourself - you can pan for what's called placer gold in rivers and streams across Alberta. We're not promising anything though!