

Mineral Processing Pilot Plant Backgrounder

Mining and mineral processing are key sectors of Saskatchewan and Canada's economies. Saskatchewan is the largest potash producer in the world, and one of the world's largest uranium producers. In addition, rare earth minerals, oil sand and shale and other commodities, such as gold, base metals and diamonds, are also being developed. This growth has created a need for a Saskatchewan-based mineral processing pilot plant facility and metallurgical testing capability, as well as effluent and tailings treatment expertise, to serve this important industry.

The Saskatchewan Research Council (SRC) has over 65 years of experience in research, development, demonstration and analytical support for the mining industry. SRC currently supports the global mining industry in uranium, potash, gold, base metals, diamonds, coal, oil sand, and oil shale. SRC's Geoanalytical Laboratories is one of the best and most comprehensive in the industry, and its secure diamond facility is one of the largest commercial diamond recovery facilities in the world.

With help from federal and provincial funding, SRC developed a new, \$2.2 million mineral processing pilot plant in Saskatoon.

The pilot plant will support Saskatchewan and Canadian companies involved in processing minerals such as potash, gold, base metals, diamonds, coal, oil sand, oil shale and especially rare earth minerals.

The pilot plant complements and builds on SRC's growing expertise and capabilities in mineral processing, and enables SRC to support mineral industry and mill operators with a broader range of services including:

- applied research, development, process design, scale-up, and pilot-scale demonstration;
- new and improved processes for the extraction of valuable metals and minerals;
- new and improved processes for sorting diamonds, and,
- technologies for future potential underground mills for uranium, potash and other minerals.

Taken together, the pilot plant and SRC's existing mineral processing expertise, laboratory and testing facilities will ensure Saskatchewan has leading-edge support capabilities to develop mineral deposits in the most efficient way, while minimizing environmental impacts.