

2003 Innovative Achievement Award – Mr. Doug Beattie

Doug Beattie was the lead engineer in the conceptualization, design, and successful implementation of the innovative mining method in use at the McArthur River uranium mine in northern Saskatchewan. The ore bodies, located at a depth of 500 to 620 m below the surface, have a very high uranium concentration of above 20%, approximately 200 times that of the Elliot Lake mines. The health hazard associated with mining high-grade ore required the development of a remote method. This was further complicated by the porosity of the surrounding fractured sandstone rock, which is subject to groundwater flow. The chosen solution was to freeze the ground in the area of the ore to be mined, develop tunnels above and below the ore body, and then remove the ore by a remote raise-boring technique. The two techniques, freezing and raise-boring, had been used previously for other purposes, but had never before been used in combination for production mining.

Doug Beattie graduated in mining engineering at Queen's University. After working as a mining engineer in Saskatchewan and Australia, he joined Cameco Corporation in 1993 as Senior Mining Engineer at the McArthur River exploration project. He later became Engineering Superintendent during the construction phase, and Mine Superintendent during the ramp-up to full production. He is currently the Corporate Chief Mine Engineer at Cameco's Head Office. Doug Beattie is receiving this award for his leadership in the conceptualization and implementation of this new mining method.