



CANADIAN URANIUM MINING



World's Largest Producer
2002: 11 607 tonnes of uranium
31% of total world production

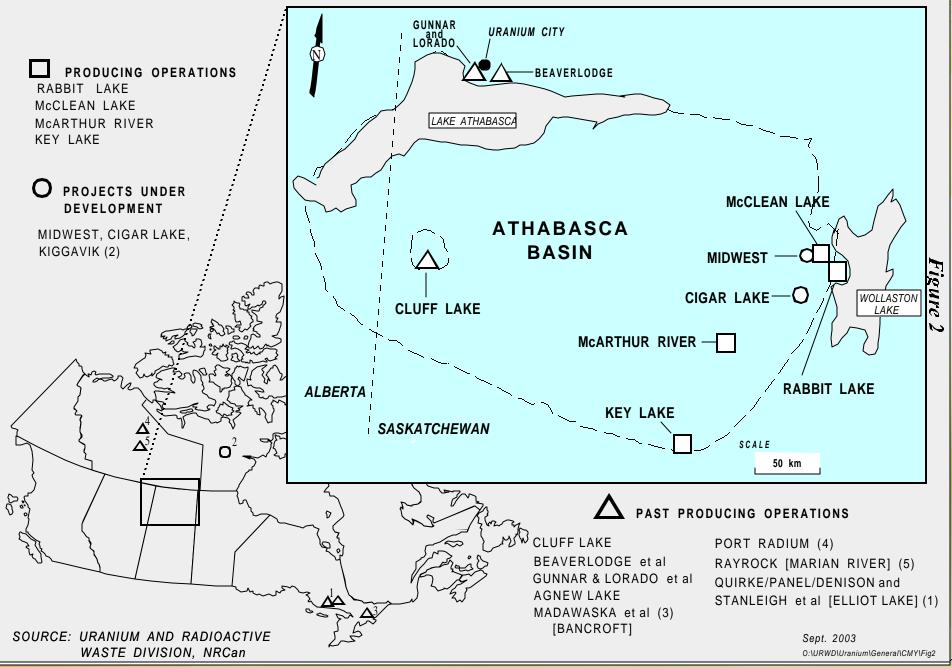
World's Largest High-Grade Deposits

Impact Assessment an Integral Part of Mine Development





URANIUM MINES IN CANADA



Assessment History of Saskatchewan Mines



- Cluff Lake Board of Inquiry (1977-79)
- Key Lake Board of Inquiry (1979-81)
- Rabbit Lake Expansion (1991-93)
- Joint Federal Provincial Panel (1991-1997)
 - Cluff Lake expansion
 - McClean Lake
 - McArthur River
 - Midwest
 - Cigar Lake



Assessment History (cont'd)



- Ongoing Requirements: Canadian Nuclear Safety Commission - Nuclear Safety and Control Act (2000); Canadian Environmental Assessment Act (1995); Saskatchewan **Environmental Assessment Act (1980)**
 - Cigar Lake Waste Rock
 - Cluff Lake Decommissioning
 - McClean Lake Operation; Expansion
 - McArthur River/Key Lake Expansion
 - Cigar Lake Construction
 - Key Lake Recycle Project



Canada



Process and Issues

PROCESS

- Initially very broad in scope; now more focused
- Public consultation in all processes
- All thus far have recommended that developments proceed, with conditions

RECURRENT ISSUES

- Worker Health and Safety
- Environmental Protection
- Local Participation and Benefits
- Decommissioning

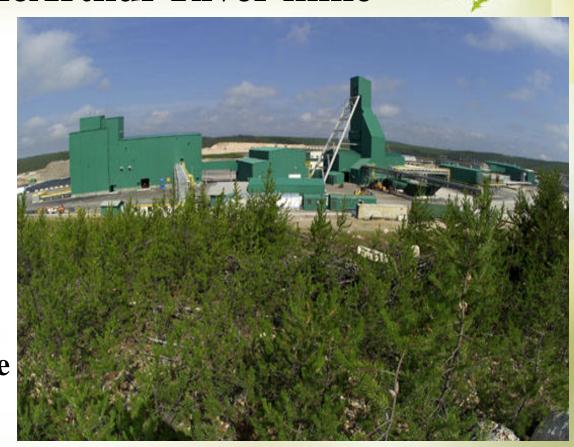
ADDRESSED DURING SUBSEQUENT DEVELOPMENT





RESULTS – WORKER HEALTH AND SAFETY: McArthur River mine

- World's largest highgrade deposit
- >175 000 tU, 20%U
- ~20% of global production
- Challenges: worker safety groundwater, radiation
- Ground freezing; remote underground mining







RESULTS – WORKER HEALTH AND SAFETY: McArthur River remote mining, preliminary processing





- Remotely operated scoop tram
- Underground crushing, grinding, slurry production
- Remote loading and unloading of slurry on specially designed trucks; 80 km to Key Lake mill (blended down

with waste rock)



RESULTS – WORKER HEALTH AND SAFETY: McClean Lake mill





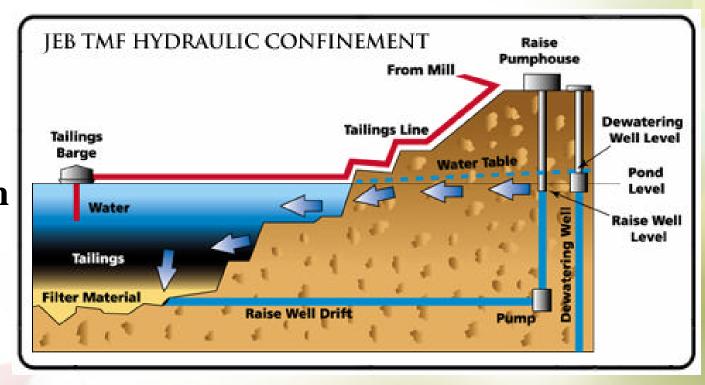
Powerful ventilation system; lead flooring on worker platforms; graded flooring for clean-up ease





RESULTS – ENVIRONMENTAL PROTECTION: McClean Lake tailings management

Operational
Safety
Underwater
Deposition
Dewatering
Long-term







disposal

RESULTS – LOCAL PARTICIPATION / BENEFITS





- Employment of Northerners (85% Aboriginal)
- Preferential Contracting with Northern Businesses
- Environmental Monitoring Committees





RESULTS -DECOMMISSIONING Elliot Lake, Ontario

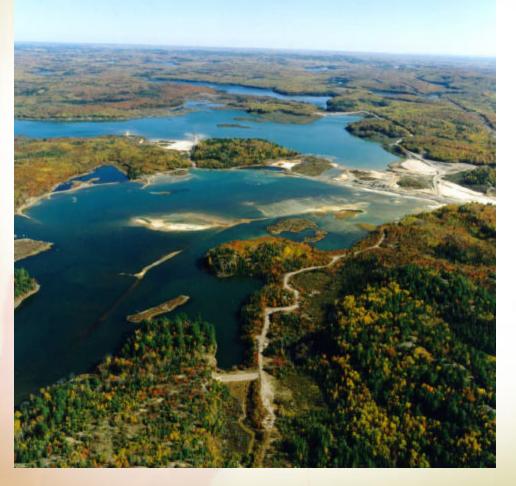




- 40+ years of uranium mining
- Assessment Panel (1993-96)
- 1996: Last mine/mill closes
- >\$75 million company expenditures
- Buildings demolished, most tailings submerged to reduce radon emissions and acid generation



RESULTS – DECOMMISSIONING Elliot Lake: Serpent River Watershed Monitoring Program



- Ongoing water treatment, monitoring
- 2000 First report of comprehensive program (5 yr. cycle)
- Water meets guidelines
- Provides healthy fish habitat



Conclusion

- Impact Assessment
 - has been, and continues to be, an integral part of uranium mine development in Canada
 - contributes to the development of a modern, high-tech and environmentally sustainable industry with high worker health and safety standards
 - has minimized environmental impacts of closed Elliot Lake uranium mines and mills



