

ABOUT OUR COMPANY

GLJ is Canada's premier group of international energy and mineral resource consultants. For over 50 years, our team of engineers, geoscientists, technologists and business professionals have provided expert analysis, strategic development and independent advisory services to clients across Canada and globe. Our team of future thinking experienced professionals are conversant with production practices, mineral in-situ recovery projects, host rock modelling, processing optimization and preparing compliant resource & reserves reports.

WWW.GLJPC.COM



INTERESTED IN WORKING WITH US?

GLJ Ltd.

1920, 401 – 9th Ave. S.W.

Calgary, Alberta, Canada

T2P 3C5

criticalminerals@gljpc.com



+1-403-266-9500

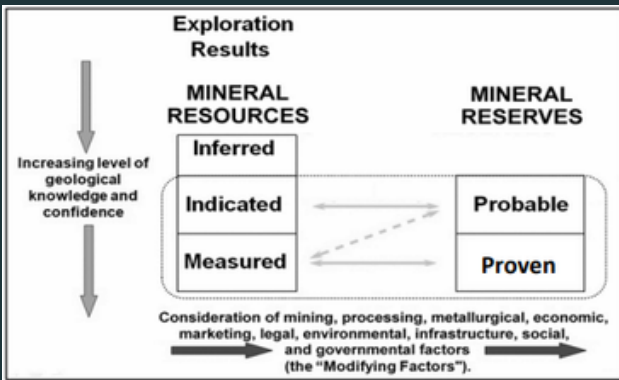


CRITICAL MINERALS & ELEMENTS

IN-SITU RECOVERY (ISR) PROJECTS

gljpc.com

Future Thinking



Source: Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Definition Standards for Mineral Resources and Mineral Reserves (2014).

MINERAL IN-SITU RECOVERY PROJECTS

Mineral focused in-situ recovery (ISR) projects extract elements by dissolving them underground with the use of a fluid (lixiviant) pumped through boreholes. This technology has been a trusted method globally for over 50 years and has been applied to uranium, copper, gold, and potash. ISR projects offer a minimally intrusive, eco-friendly, and economically competitive approach for mineral extraction.



INJECTION

A water based solution often oxygenated referred to as lixiviant is pumped into injection wells that intersect the orebody.



DISSOLUTION

The solution moves through the porous host rock typically a sandstone and dissolves the target element.



RECOVERY

The mineral rich fluid is pumped to the surface via recovery wellbores.



PROCESSING

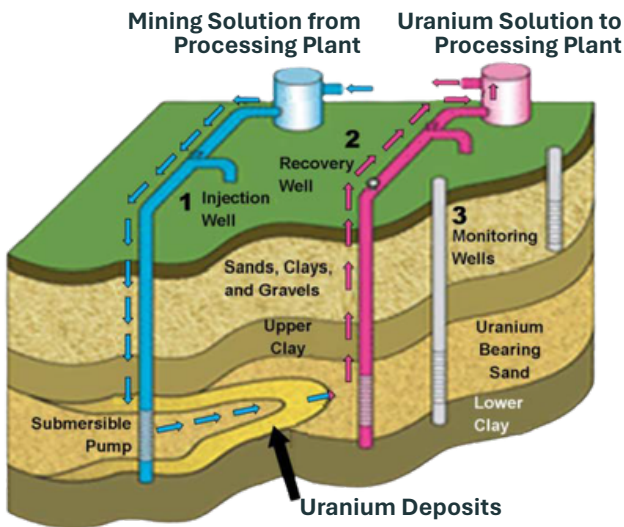
The element is extracted from solution being converted into specific raw forms for each commodity.



CONTAINMENT

Wellbore patterns and impermeable rock layers isolate the solution within the "mining" zone.

Critical minerals and elements are the basis of building blocks for modern technology. The suite of elements are essential to key industrial uses including infrastructure, healthcare, electronics, transportation, communications and national security. The term "critical" is predicated upon each country's definition of access, end uses, export values, and national supply risks. From a Canadian perspective Canada produces over 60 minerals & elements of which 34 are listed as critical towards economic growth, the environment and national security. The value chain encompasses 5 key segments including geoscience, exploration, mineral extraction, intermediate processing, advanced manufacturing, and recycling. The integration of in-situ extraction methods may be an alternative to conventional open pit and/or underground extraction subject to key technical parameters including sandstone rock properties and chemical composition of the elements targeted for extraction.



Source: Earthworks, In-situ Leach Uranium Mining (earthworks.org), accessed 2026.

OUR SERVICES

GLJ's suite of services supports the evaluation of and implementation of in-situ recovery (ISR) projects focused upon uranium, copper, gold, & potash. Our team of professionals assist operators and external stakeholders including regulators and investors by providing independent analysis and expertise comprised of the following:

- Geologic characterization & modelling
- Mineral resources and reserves estimation
- Field development planning
- Market assessment
- Economic modelling & Feasibility studies
- NI 43-101 reporting & Qualified Person sign-off
- JORC reporting & Competent Person sign-off

