

# URANIUM RECOVERY FROM ACID MINE DRAINAGE TREATMENT RESIDUE

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CHALLENGES AND SOLUTIONS



**LAPOC**

# OBJECTIVE

- To develop an alkaline leaching process to recover uranium from the acidic water treatment residue.

# METHODOLOGY

- Leaching tests with different leaching agents, temperature and reaction time.
- All of tests used 10% solids.

# RESULTS

- **Optimal operating conditions:**
  - Reaction time of 4 hours;
  - Temperature at 70 °C;
  - [Na<sub>2</sub>CO<sub>3</sub>:NaHCO<sub>3</sub>] 1:3 and
  - Solid percentage at 10%.
- **88% U<sub>3</sub>O<sub>8</sub> solubilization.**