

RARE EARTH ORE PROCESSING

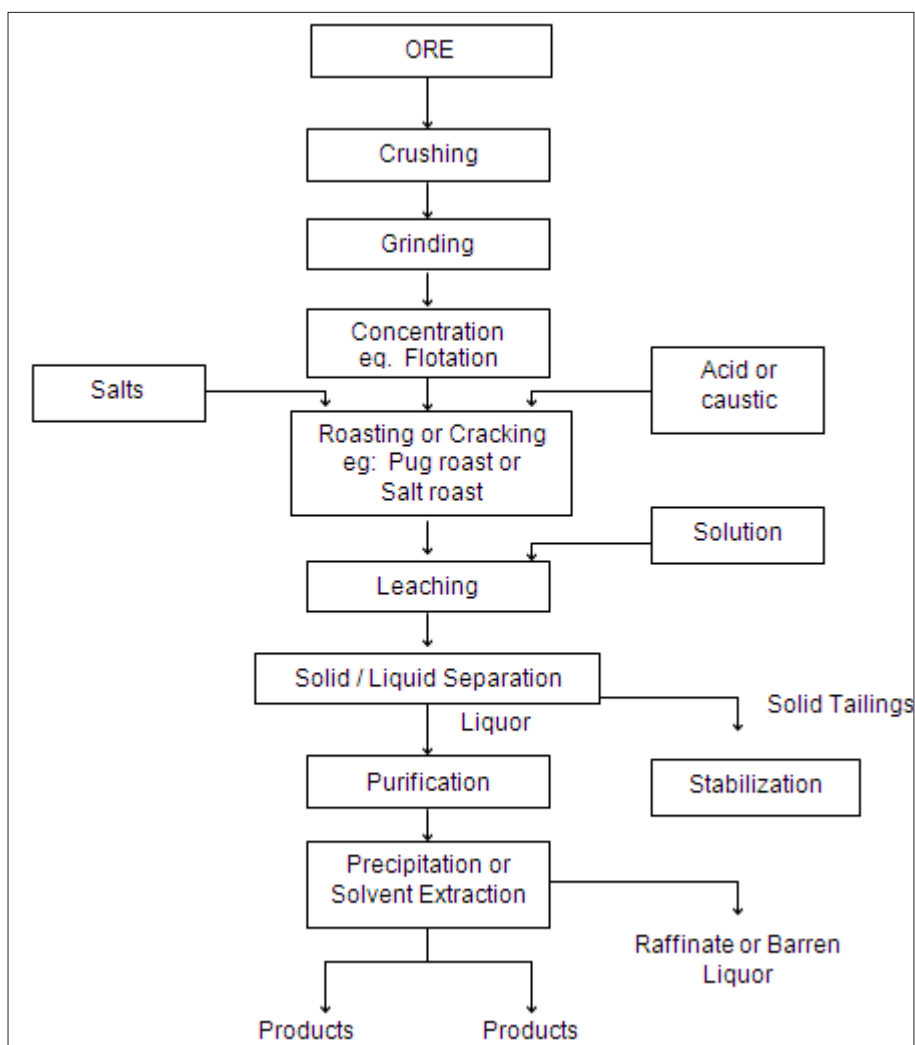
CAPABILITY STATEMENT

Testwork programs generally commence with initial scoping tests (batch tests) covering a range of possible unit operations in a potential flowsheet. Specific unit operations and procedures are then selected for more detailed testing, eventually followed by locked cycle or continuous testing of a particular flowsheet.

A typical example of a rare earth processing flowsheet is shown below:

EXPERIENCE

- Recovery of rare earths, CeO₂, mixed rare earths, polishing powder from an Australian deposit
- Desliming, flotation, dewatering, pre-leaching, caustic cracking, acid leaching, purification of solution, precipitation. Batch Testwork and continuous pilot plant
- Recovery of rare earths, zirconium/hafnium and tantalum/niobium from an Australian deposit
- Fine grinding, pug roasting, leaching, solvent extraction, precipitation and ion exchange
- Recovery of rare earths from a Spanish deposit
- Fine grinding, cracking, leaching, solvent extraction/ion exchange
- Recovery of niobium from a European deposit
- Fine grinding, cracking, leaching, solvent extraction, precipitation
- Recovery of vanadium from Australian deposits
- Fine grinding, roast/leach, pressure leach, purification of solution, precipitation and possibly solvent extraction



- Solvent extraction separation of zinc and cobalt
- Pressure leach, purification of solution, solvent extraction piloting
- Solvent extraction separation of various base metals
- Pressure leach, purification of solution, solvent extraction
- Flotation of apatite: fatty acid flotation of phosphate rock from Australian deposit
- Flotation of magnesite: fatty acid flotation of magnesite from Australian deposits
- Flotation of graphite: flotation of graphite with various collectors including fatty acids

CONTACT INFORMATION

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