

Cobalt Processing Expertise

Mineral Processing:

- ◆ Bulk & differential flotation for Co-containing ores & tailings
- ◆ Magnetic upgrading
- ◆ Ultrafine flotation

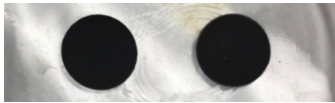
Hydrometallurgy:

- ◆ Whole ore & concentrate leaching
- ◆ Selective Co bioleaching
- ◆ Pressure oxidation
- ◆ Co recycling & extraction from wastes
- ◆ Conventional & proprietary leaching methods
- ◆ Purification & selective Co recovery



Past Projects:

- ◆ Li-Co cathode material recycling
- ◆ Ni-Co flotation from massive sulfide ores
- ◆ Co-Ni-Cu-PGM from high sulfide ultramafic ore
- ◆ Reductive leach of Co-Mn hosted in silica matrix
- ◆ Bioleaching of Co-Ni-Cu concentrate
- ◆ Ni and Co selective precipitation from acid mine drainage solutions
- ◆ Solvent extraction to recover Co, Ni, and Ag from spent catalyst
- ◆ Optimization of Co-Ni separation by solvent extraction
- ◆ Cu-Co-Ni separation by solvent extraction
- ◆ Solvent extraction to recover Co from waste streams



Customized Research & Development Programs:

- ◆ *Scoping studies*
- ◆ *Unit operation optimization*
- ◆ *Flowsheet development*
- ◆ *Locked cycle testing*
- ◆ *Pilot plant demonstration*
- ◆ *Generation of market samples*

