ANSTO Minerals has extensive experience in handling and treating ores and wastes, particularly where radioactivity is present. We have considerable expertise in the areas of leaching, solvent extraction, ion exchange and membrane processes. Because we work with uranium ores, our sample preparation and ore processing equipment is designed to ensure minimal dust loading in the working environment and venting of radon where it could be a problem.

ANSTO Minerals teams undertake innovative process development, from small-scale evaluation of drill hole samples through to pilot plant demonstrations. These capabilities are provided at our own facilities as well as for on-site problem solving. Our facilities contain a considerable range of modern analytical instruments including some nuclear techniques available only at ANSTO.

We provide:

- Specialised knowledge in the processing of uranium, copper, heavy mineral sands and nickel/cobalt minerals
- Extensive experience in the processing of monazite and the purification of rare earths
- Laboratory and pilot plant studies of the techniques:
  - Oxidation processes in leaching
  - Solvent extraction
  - Ion exchange
  - Membrane technologies
  - Precipitation
  - Neutralisation
  - Resin in pulp and resin in leach applications
- Conceptual studies for flowsheet development of greenfield mineral processing sites
- Minesite plant audits and surveys
- Column studies and continuous ion exchange processes
- Metal ion separations using nanofiltration membranes