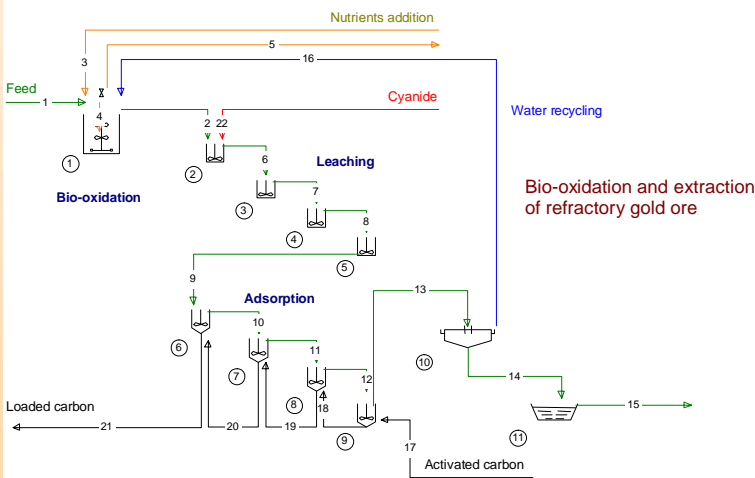


The Process Engineer's Toolbox

Process design

- Define the main treatment stages to reach a given objective
- Determine the forecasted material balance: each stream description
- Size the main equipment and define the settings
- Estimate the investment and operating costs
- Contribute to the technical and economical feasibility studies



Process optimization

- Increase the process capacity
- Improve the final product quality
- Consumption reduction: energy, water, reagents
- Evaluate and limit environmental impact
- Adapt the process to the raw material variability
- Increase reactivity, facing up to the market variations

Process monitoring

- Control performance
- Plant surveys

Mineral industry for all types of minerals and ores

- Iron, base metals, sulfide and oxidized ores
- Precious metals, Diamonds
- Phosphate, potash
- Industrial minerals (kaolin, feldspar, carbonate, talc...)
- Building materials: aggregates, cement, plaster
- Uranium, coal

Other industries

- Industrial and urban waste management





USIM PAC



www.ozmet.com.au

Serving your process needs
www.caspeo.net

A user-friendly interface focused on process engineers' tools

The flowsheet is easily drawn using a set of unit operation icons.

A click on a stream gives access to:

- The material flowrate, size distribution and composition;
- The size distribution and washability curve.

A click on a unit operation gives access to:

- The unit size and settings, the mathematical model parameters;
- The partition curve and the split curve.

Tables permit display of global plant performances.

A library of unit operation mathematical models

Crushing, grinding, attrition, fine grinding; Size classification, gravity and magnetic separation, flotation;

Solid-liquid separation: settling, thickening, filtration ;

Hydrometallurgy : leaching, CIP, CIL, precipitation, solvent extraction, electrowinning

Powerful algorithms and methodologies for:

- Process simulation;
- Equipment sizing;
- Equipment setting optimization;
- Capital cost estimation;
- Sensitivity analysis to evaluate process flexibility.

Better knowledge of the process

Reduction of pilot and industrial tests

Identification of bottlenecks

Fast evaluation of alternative configurations

Evaluation and use of the process flexibility

Increased recovery

Consumption reduction: reagents, energy, water

**Productivity
increase**

**Cost
reduction**

