



## Processing and Metallurgical Modifying Factors

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#### **CRIRSCO Template Appendix 1**

#### **Generic Terms and Equivalents**

MetallurgyProcessing,<br/>Beneficiation,<br/>PreparationPhysical and/or chemical separation<br/>of constituents of interest from a<br/>larger mass of material. Methods<br/>employed to prepare a final<br/>marketable product from material as<br/>mined. Examples include screening,<br/>flotation, magnetic separation,<br/>leaching, washing, roasting etc.





























- Gravity separation for coal and gold
- Optical sorting for diamonds
- Magnetic separation of mineral sands
- Cyanide leaching of gold
- Froth flotation for base metals and coal
- Smelting and refining of copper concentrates





### Standard Definitions in CRIRSCO Template

 PreFeasibility Study – "an effective method of mineral processing is determined"

 Feasibility Study – "appropriately detailed assessments"





- Not just Metallurgy
- Geology
- Geometallurgy
- Mining
- Environment
- Power
- Water
- Logistics





### TABLE 1

#### **CHECK LIST OF ASSESSMENT AND REPORTING CRITERIA**

- *important to report any matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported.*
- *the normal systematic approach to exploration and evaluation.*





- The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.
- Whether the metallurgical process is well-tested technology or novel in nature.
- The nature, amount and representativeness of metallurgical test work undertaken and the metallurgical recovery factors applied.
- Any assumptions or allowances made for deleterious elements.





- The existence of any bulk sample or pilot scale test work and the degree to which such samples are representative of the orebody as a whole.
- The tonnages and grades reported for Mineral Reserves should state clearly whether these are in respect of material to the plant or after recovery.
- Comment on existing plant and equipment, including an indication of replacement and salvage value.





#### In reporting Mineral Reserves, information on estimated mineral processing recovery factors is very important, and should always be included in Public Reports.













