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To: Comalco Limited

15 December 1975

Moina fluorite will perform better than Mount Garnet and it should be feasible to demonstrate this with only a few flotation tests.

We suggest that a very limited metallurgical investigation be undertaken as follows:

1. Apply the Lost River flotation process -
  - (a) Feed grind 85% - 325 mesh
  - (b) Conditioning with reagents
  - (c) Rougher, cleaner flotation
  - (d) Hot conditioning (60-70°C)
  - (e) Further eight cleaning stages
  - (f) Magnetic separation of flotation product.
  
2. Apply the flotation process developed at Amel for Mt Garnet fluorite -
  - (a) Feed grind 85% - 325 mesh with sodium silicate, KCN, soda ash added to the mill. Quebracho can be added also if the ore contains carbonate.
  - (b) Flotation with collector AP845, rougher and three cleaner stages. Rougher flotation at 40°C.
  - (c) Regrind of third cleaner concentrate.
  - (d) Two further cleaner stages.
  - (e) Magnetic separation of flotation product.

The reagent types and quantities for the Lost River process are not known, but because voluminous froths are produced we assume that the collector is oleic acid or a tall oil with low content of rosin acids.

We envisage that three flotation tests would be required to test the Lost River process and establish appropriate reagent levels. Two flotation tests should be sufficient to test the Mount Garnet process.

The estimated cost of carrying out the suggested investigation is \$1850. If you prefer to test only the Lost River process at this stage, the estimated cost will be \$1325.

The estimated fee is subject to any mutually agreed changes in the work programme. The project will be carried out under the standard Conditions of Contract which are included and form part of this Proposal.

Our usual terms of payment are 30 days nett with invoices being submitted at monthly intervals for work performed.