The Proposed Mining Project

- An illustration of the most modern mining project in Romania

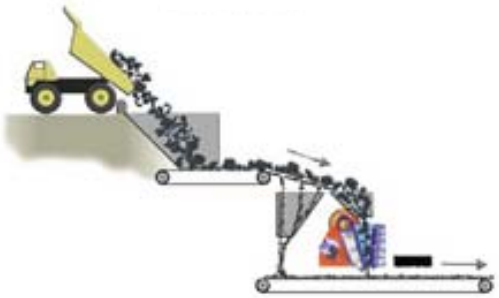
Pit

Pit setup

Blasting

Ore loading and transport

Crushing



Processing

Grinding

Leaching

Gold recovery with active carbon

Electrolysis

Melting

CN neutralisation

CONCRETE PLATFORM lined with high density polyethylene

Process tailings

Clear water

Settled tailings

Final dam

Secondary dam

Primary dam

Runoff recirculated

Proposed Mining Project

The Technological Process in the Pits

The ore is extracted in pits and crushed before entering the grinding circuit

1. Pit setup

- 4 pits will be set up: Carnic, Cetate, Jig and Orlea
- The 4 pits will be exploited in 2 phases: Cetate and Carnic in the first 9 years, while Orlea and Jig will be opened as of year 9, with the continuation of the mining operations in Cetate
- The closing of the pits and of the stockpiles will be done progressively, the stockpile of Cetate starting with year 5, the stockpile and pit of Carnic as of year 9, and the pits of Orlea and Jig in the years 12-14

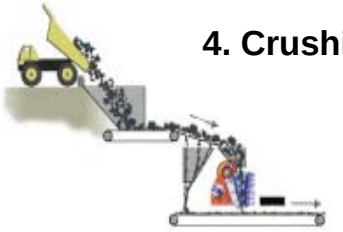
2. Blasting

- Zone I– distances over 300m
- Zone II – distances below 300m
- Special technology for each sub-zone

3. Loading and transport

- Trucks with a capacity of 146 t will be used
- 70,000 tons of rock will be transported every day (waste and ore)
- The travel distance is maximum 6km. The maximum driving speed 30 km/h
- The travel duration is 20 minutes, including the rock loading and unloading time
- The minimum number of trucks necessary is 8-9, the average no. of trucks 14

4. Crushing



- The extracted ore is crushed before entering the grinding circuit

The Technological Flow Sheet in the Processing Plant

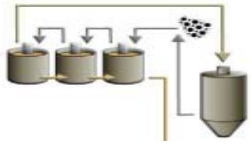
5. Grinding

- Wet grinding of the crushed ore in 2 ball crushers and one semi-autogenous mill;

6. Leaching

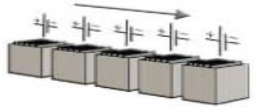
- Leaching of the ore in a CN solution, in closed tanks; the CN solution dissolves the gold and silver from the ore.

7. Gold and silver recovery on activated charcoal



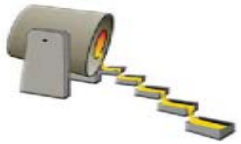
- Gold and silver recovery from the pores of the activated charcoal, by acid washing: CN bound to silver and gold settles in the pores of the activated charcoal, which floats in the solution from the leaching tanks. The coal is recovered by backwash pumping, and the gold and silver sludge is washed out from the pores with a HCl solution.

8. Electrolysis



- Gold and silver recovery from the gold-bearing sludge by electrolysis; the gold-bearing sludge is purified/enriched through electrolysis.

9. Melting



- Gold/silver melting/casting in ingots – the gold alloy is cast in ingots in an electric furnace.

10. CN neutralization

- CN neutralization from the process tailings before leaving the plant, using the INCO procedure – slurry oxidation in the presence of sodium metabisulfite and copper sulfate. The CN concentration is reduced as a result of the oxidation process.

Tailings Management Facility (TMF)

The Norwegian Geotechnical Institute conducted a risk assessment on the safety of the tailings dam of the Rosia Montana Project taking into account critical scenarios, including all possible ways in which the Corna dam could fail in extreme situations, such as an extremely rare unusually large earthquake and an extreme 24-hour rainfall. The conclusion formulated by the report published in April 2009 was clear: as it was designed, **the dam will be among the safest in the world.**

Of 13 sites reviewed, Valea Corna is the only site which fulfils all requirements including:

- Storage capacity;
- Favorable geology;
- Low environmental impact

- Designed capacity – 250 million tons
- Necessary storage capacity – 215 million tons
- Designed to resist earthquakes of up to 8 degrees Richter.
- Designed to resist two consecutive rainfalls, which can occur once every 10,000 years
- Final height 185 m + 20 m under the valley floor
- Length 1182 m
- Secondary catchment dam 22 m