

ORE PROCESSING MILLING AND SMELTING

Terminology

Define the following terms as they relate to mining.

Mill -

Beneficiation –

Concentration –

Flotation –

Magnetic separation –

Extractive Metallurgy –

Smelting (Pyrometallurgy) –

Hydrometallurgy –

Cyanidation –

Sodium cyanide –

Heap leaching –

Slag –

Gangue –

Tailings –

Questions

Answer the following questions related to ore processing, milling, and smelting.

1) Describe the beneficiation process (i.e. gravity concentration, smelting, etc.).

2) Where were smelters and stamp mills located in Park County and how does a stamp mill work?

3) How is water used in the beneficiation process?

4) How are chemicals used in the beneficiation process (i.e. hydrometallurgy)?

5) What are the environmental impacts of milling and smelting?

6) What are the water quality impacts of milling and smelting?

7) What is the Hg amalgamation process and where is Hg mined? (BONUS)