"...THE SLAMJET SPARGING SYSTEM IS THE MOST COST EFFECTIVE INJECTION SYSTEM FOR LEACHING PROCESSES..."

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THE PROCESS

In the cyanidation process for most gold ores, metallic gold must be oxidised during the process of dissolution according to the following reaction:

$$4Au + 8CN^{-} + O_{2} + 2H_{2}O = 4Au (CN)^{-}_{2} + 4OH^{-}$$
 [1]

The rate of dissolution may be limited by transport of either of the reagents, cyanide or oxygen, depending on their relative concentrations. In practise it is common to operate with an excess of cyanide, simply because DO levels are too low as a result of an inefficient aeration system.

THE SOLUTION

The **SlamJet** may be used to raise DO levels in the leach or adsorption tanks. Millions of micro bubbles produced by the spargers ensure rapid transfer of oxygen to the pulp. The SlamJet gas sparging system has proven to be highly effective in producing the optimally sized bubbles required for maximising oxygen mass transfer rates.

BENEFITS OF THE SLAMJET GAS SPARGING SYSTEMS INCLUDE:

- Higher dissolved oxygen (DO) levels than with conventional systems
- Most economical system available to produce these high DO levels
- Increased leach kinetics
- Increased gold dissolution rates
- Reduced cyanide consumption
- Reduced oxygen consumption (if used as a main source) to obtain higher DO than produced by air-only addition
- Improved metal dissolution
- Reduced operating and maintenance costs

OPERATIONAL BENEFITS DERIVED FROM USING THESE SPARGERS:

- Simple on-line installation
- Easy Removal and on-line maintenance
- Two-year guarantee against premature wear
- Reduced agitation power
- Increased carbon loading
- Increased throughput due to improved leach kinetics
- Improved and more uniform air/O₂ distribution
- No high pressure recycle pumps and piping required

More information is available at www.eriezflotation.com