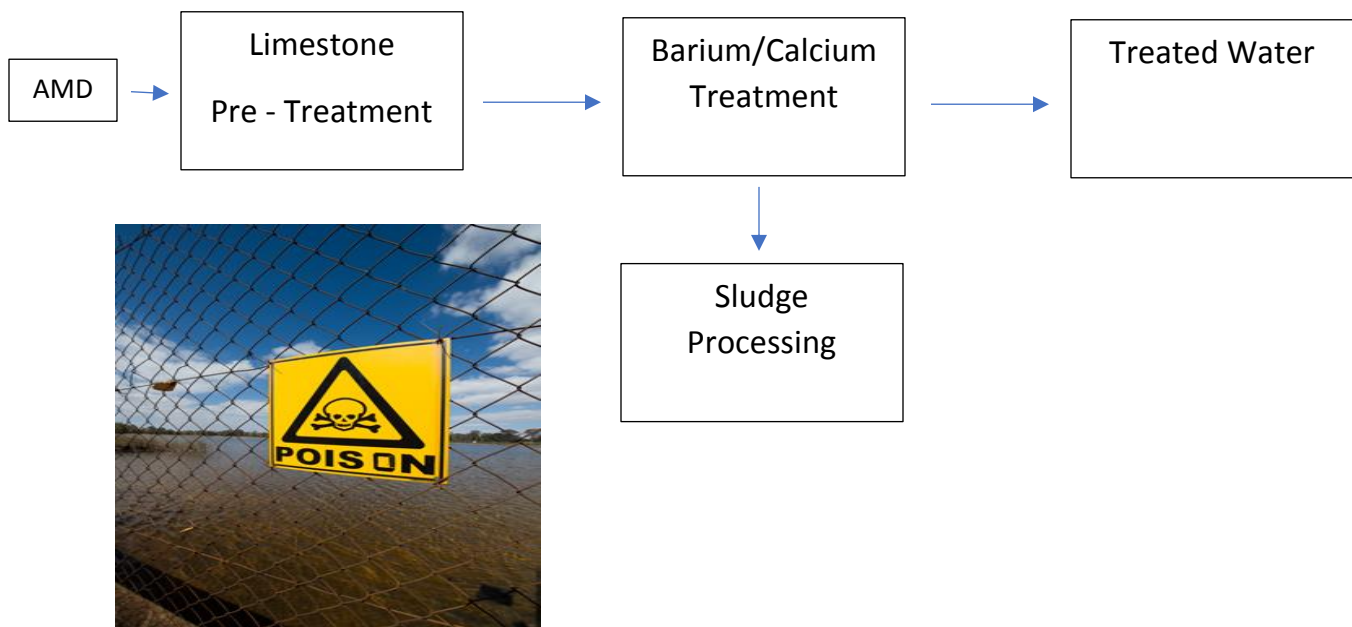


ACID MINE DRAINAGE

“Acid Mine Drainage” is formed when pyrite (iron sulphate) is exposed and reacts with air and water to form sulphuric acid. The runoff formed is usually acidic and frequently comes from areas where coal mining activities have exposed rocks containing pyrite. Historically, worked-out and abandoned gold mines, without any form of rehabilitation, have contributed to the problem.

“Legacy surrounding the problem” – comprehensive legislation only recently introduced to curb the problems and all operational mines are required to provide funds to allow environmental and social rehabilitation.

“Treatment” – the water stage is integrated with a sludge processing stage to recover alkali, barium and calcium from the chemical sludge produced in the water treatment part of the process.



Affects – problems associated with mine drainage include contamination of drinking water, disrupted growth and reproduction of aquatic plants and animals and the corroding effects of the acid on parts of infrastructures.

“Precautions to be taken” – employer to ensure, mine commissioned, maintained, operated, decommissioned to provide conditions for a healthy and safe working environment to employees and to ensure that persons who are not employees, but who may be effected by activities at the Mine are not exposed to any hazard to their health and safety.

Further mitigating controls could be the following:

- Decant prevention – water levels to be held below Environmental Critical Levels;
- Ingress Control – reduction of the rate of flooding;
- Water Quality Management