



TOOWONG PROCESSTM

removal of toxic contaminants from mineral concentrates

The Toowong ProcessTM is a demonstrated process to remove deleterious elements from mineral concentrates at the mine site prior to shipping. The Toowong ProcessTM is effective for arsenic, antimony and other penalty elements.

The patented alkaline leaching technology selectively leaches out targeted key penalty impurities leaving a premium clean concentrate. It does not alter the primary payable metals such as copper.

The Toowong ProcessTM is a game-changing technology for the industry, designed to enable projects and operations with high levels of penalty elements to be economic.

The Arsenic Problem

- Increasing arsenic levels in mining projects globally pose a growing environmental hazard
- Smelting generates unstable arsenic residues
- Major arsenic environmental issues in and around smelters causing land and air pollution and health risks
- Tightening government controls on allowable arsenic levels
- Expensive / prohibitive treatment charges for miners and very limited sales channels for high arsenic concentrates

The Toowong ProcessTM addresses a critical global environmental problem for which there are currently no industry accepted solutions.

▶ FEATURED PROCESS

Toowong Process™ Pilot Plant – \$4.5m
34 day continuous pilot plant
successfully removed As from
concentrates from three global mines



Effective removal of arsenic and antimony

The Toowong Process™ involves

- Chemical separation of arsenic at the mine site
- Captures arsenic in an environmentally stable form
- Returning arsenic to its original native location
- Creation of premium clean copper concentrate for shipment to smelter
- Efficient recycling and re-use of key reagents
- Can be readily retro-fitted to existing operations

The Benefits of the Toowong Process™

- Integrated, safe and hygienic solution
- Highly effective removal of arsenic and antimony
- Technology well demonstrated in continuous pilot plant trials on a variety of feeds
- Premium clean concentrate product generated
- Design and cost engineering studies demonstrate effective capital and operating cost economics
- Environmentally stable waste
- Provides a targeted means of selectively removing arsenic without impacting the primary payable metals such as copper

Proven Results

Core Resources has extensive onsite and laboratory experience and our specialised team of Process Engineers deliver the Toowong Process™ to customers worldwide.

From rigorous pilot plant testing of a variety of concentrates the following results are demonstrated:

- Can achieve >90% As Removal
- Final concentrates can be reduced to below 0.1% As
- Stable Arsenic product can be generated, suitable for permanent disposal
- Highly efficient with low reagent consumptions

This is a technology which specifically targets arsenic removal. It does not rely on the economics of solubilising and recovering copper in order to abate arsenic.

Interested to find out more?

Contact: info@coresources.com.au

About Core Resources Core Resources is an award-winning process engineering and metallurgical testing business based in Brisbane, Australia. Core Resources services a global customer base, enabling the world's mining projects with innovative metallurgical flowsheet solutions.



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