



## **Disposal and improvement of contaminated by waste extraction of copper mining in chile**

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This project originated from the need of a mining company, which mines and processes copper ore. High purity copper is produced with an annual production of 1,113,928 tons of concentrate to a law of 32%. This mining company has generated several illegal landfills and has been forced by the government to make a management center Industrial Solid Waste (ISW). The forecast volume of waste generated is 20,000 tons / year.

Chemical analysis established that the studied soil has a high copper content, caused by nature or from the spread of contaminants from mining activities. Moreover, in some sectors, soil contamination by mercury, hydrocarbons and oils and fats were detected, likely associated with the accumulation of waste.

The waters are also impacted by mining industrial tasks, specifically copper ores, molybdenum, manganese, sulfates and have an acidic pH.

The ISW management center dispels the pollution of soil and water and concentrating all activities in a technically suitable place. In this center the necessary guidelines for the treatment and disposal of soil contamination caused by uncontrolled landfills are given, also generating a leachate collection system and a network of fluid monitoring physicochemical water quality and soil environment.

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