Cost Effective Maintenance Policy of an Ore Dressing Mill

Research Period: 2009 - 2012

Introduction
The mill performance and its maintenance play an important role for the gains of the owner's. The wear of liners influence the performance and efficiency of the mill and its maintenance leads to higher downtime which leads to higher economic losses. The downtime cost during replacement and inspection is major cost driver. An inefficient maintenance policy influences both mill performance and downtime.

Objectives
The objective of the project is to maximize the long-term profit for the users of the mills through optimal decisions for maintenance tasks.

Deliverables
- The outcome of this research will be in the form of a decision support models and tools (comprising of models and demonstrator), to estimate the economic life of mill liners.
- Developed a decision model for optimum replacement interval of mill liners of the grinding mills.
- Developing a mathematical model to assess economic performance of the mill

Sponsors
- VINNOVA Mining Program
- Boliden AB
- Metso Minerals

Inside view of mill liners and charge in an ore grinding mill

Economic life estimation of mill liners based on operational and maintenance parameters