

# **ASSESSMENT OF PERIMETER BLASTING AT THE HOMESTAKE MINE**

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## **ABSTRACT**

Homestake Mining Company has made a firm commitment to develop a functional and cost effective perimeter blasting program. The goal of the program is to develop smooth, sound walls in all development ends. A good perimeter blasting method will improve safety, reduce waste rock handling, allow easier support installation and reduce scaling time. All the benefits will contribute to an overall reduction in total development costs.

One part of this program was an intensive assessment of the blasting practices using advanced blast monitoring techniques. This type of monitoring allows identification of misfires, inefficient detonations and energy levels from different types of powder. An evaluation of different perimeter blasting methods was undertaken over a ten day period in the lower section of the mine. A total of eight blasts were examined in detail. The monitoring indicated that the blasting practices in this part of the mine were efficiently producing very good walls. The amount of energy produced by Anfo, diluted Anfo and detonating cord was recorded. This evaluation resulted in a better understanding of the performance of the blasts in general and identified which aspects of blasting had the greatest impact upon wall control. The use of a similar drill pattern and loading practices was recommended for other crews in the same area.