

BLAST FRAGMENTATION SIZE ANALYSIS TECHNIQUES AND APPLICATION EXPERIENCE

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ABSTRACT

Fragmentation size assessment faces difficult problems, traditionally involving tedious and time consuming procedures. Early work had been directed towards developing empirical methods of predicting rather than measuring fragmentation. More recent development of computer-based image processing techniques which derive size distributions by analysis of photographic or video images are reviewed. These are now being adapted by various workers to fragmentation analysis in mines. Results are presented from experimental work aimed to establish the accuracy and precision of photographic techniques for muckpile assessment. Reference is made to McGill fragmentation studies at surface and underground mines in Canada, relating to experience gained in photographic and image processing techniques. The various factors that affect such techniques as well as their limitations and strengths are discussed.