

Economically and environmental friendly control blasting results through stemming plug

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ABSTRACT

A control blast results with stemming plug application are presented through two case studies in different Indian geo-mining conditions. Application of stemming plug blast results demonstrated the substantial improvement in explosive energy retention time and high bore hole pressure generation. High retention time and more bore hole pressure of dynamic energy to allow more conversion of chemical to mechanical energy on rock mass hence proper utilization of explosive energy to damage rock mass with uniform size and minimize or completely eliminate the chances of fly rock. Further, stemming plug show better results in case of improve drilling pattern and reduce the explosive consumption makes production cost reduction. Uniform and small size blast fragments results of stemming plug has improve the performance of loading, hauling and crusher machinery and reduce the carbon load to environment. The present paper described the advantage of stemming plug over conventional stemming.

Keywords: Control blasting, Stemming plug, Fragmentation