

Some Comments Regarding Development Drifting Practices with Special Emphasis on
Caving Applications

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ABSTRACT

Mass mining systems such as block caving and sublevel caving have been applied in the successful extraction of large orebodies for more than a century. Although the fundamental concepts have largely remained the same, both the designs and particularly the equipment used have seen remarkable changes over the years. Effective development drifting has played and continues to play a key role in the successful application and operation of caving methods. With the continuing search for and introduction of more cost effective extraction systems, “engineered” drifting will play an even more central role in the future. An important ingredient in this regard is the acceptance of the concept of smoothwall excavation and then its whole-hearted introduction and use by mining companies. To assist in this process, the central part of this paper will deal with practical smoothwall blast design for development drifting. Experience and knowledge gained while conducting an extensive research and development program on cautious blasting in drifting by the National Institute of Occupational Safety and Health (NIOSH) will be highlighted. The paper concludes with some ideas regarding future developments.