THE NEW ADVANCES OF HIGH RESOLUTION AND PRECISION SEISMIC EXPLORING TECHNIQUES (2D 3D) IN CHINA COAL INDUSTRY

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The coal is the main energy source of China. In the near twenty years, the coal takes 71.3 to 76.5 percent of the total primary consuming energy sources in China. The extent to mine coal with comprehensive mechanized will reach 80 percent in the major state-operated coal mines in 2000.

The coal geological structure is much complex in China. In order to meet the needs of a large scale comprehensive mechanized mining coal activities, a new technique, called the high resolution and precision seismic exploring technique (2D 3D), used to determine the small geological structures for the construction and production of coal mines, has been developed in recent years in China. This technique has many advantages, such as, low cost, short period of operating, high precision and a wide extent of application. It has achieved a great development to submit the high precise geological results to the managers and engineers for the construction and production of coal mines in China.

From the view of main geological features in coal mines of China, this paper addresses the new advances achieved in techniques in recent years and reviews the development of application and dissemination in China coal mines. From this paper, you could know the geological effects and social economic benefits obtained by using this technique.

We could believe that to take the high—resolution and precision seismic technique in the exploration as the modern tool has been becoming a standard procedure in the processing of construction and operation of coal mines in China.