

Current Situation of Unbeknown Mine Goafs and Goaf Water in China

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Abstract Mine water disasters are critical problems in China. During Eleventh Five-Year plan, the ratio of Goaf disaster from the goaf water-inrush reached 88%, so the investigation for goaf and goaf water is needed urgently. The investigation for unbeknown goaf and goaf water is still in the stage of exploration in China. This article analyzed the current situation of unbeknown goaf and goaf water in China, such as survey methods, detection means and result analysis etc. At present, it is based on the visiting investigation and comprehensive analysis which adopt the comprehensive geophysical prospecting methods to determine the possible goaf, and verified by drilling.

Integrated geophysical prospecting methods are the primary measures for goaf and goaf water exploration. The different geophysical prospecting methods are valid detection measures under certain conditions, but which has some limitations, namely various geophysical prospecting methods have different advantages and disadvantages. In general, we takes several geophysical techniques complementary, complement one another perfectly, corroborate each other and delineated the suspected goaf. Integrated utilization of geophysical prospecting methods is the trend of exploring goaf and goaf water.

Various geophysical prospecting methods have certain error. So we should improve the degree of accuracy for geophysical, prospecting methods and strengthen the analysis of geophysical prospecting data and the summarizing for the law of interpreted geophysical in future.

Keywords goaf, goaf water, geophysical methods, current situation