

## **Locating and Intercepting Water-conducting Channels by Multiple Ways in Coal Mine**

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**Abstract** The accurate location of water-conducting channels in coal mine is the base of making water prevention and control plans. Because of complicated hydrogeological conditions, locating water-conducting channels accurately can not be realized only by a exploration way, and the effect of single measure can not satisfying moreover. Water source and water-conducting channels of No.7 coal mine in Pingdingshan of China are found out by the following exploration ways. Firstly, site reconnaissance is adopted in the area of No.7 coal mine to find the location of Neogene System marlite. Secondly, geophysical prospection is made on the bank of Wujiang River locating near the area of No.7 coal mine. Thirdly, flow monitoring is made in sections of rivers located in or near the area of coal mine. Fourthly, the exiting hydrological and geological data of No.7 coal mine are analyzed. On these basis, the water prevention and control plans are worked out that Wujiang river way and Beiganqu River way are hardened, and water-conducting channels are intercepted by grouting on the ground. The effect evaluation of the plans is made after the Beiganqu River way is harden. The water inflow of No.7 coal mine in wet period decreases greatly. So locating water-conducting channels and intercepting water-conducting channels by multiple ways can be satisfying.

**Keywords** water-conducting channel, water source, sharp-crested weir, water control technology