

MESOZOIC VOLCANIC ROCKS-HOSTED GOLD DEPOSIT-POTENTIAL NEW DEPOSITS IN NW HEBEI, CHINA

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Most of gold deposits in the world were formed by heat fluids with high pressure from the upper mantle and usually occur swarmly in a limited area. They have close relations with geological structures, especially faults. Their metallogeny did not choose the type of rocks. Therefore, it is possible to find gold deposits in every kind of rocks in a gold concentrated region.

Since the middle of 1980s, the northwestern Hebei has become one of the new gold concentrated region of China. The main reason is the identification of K-altered rock type gold deposit which results in the discovery of 5 large and middle-sized gold deposits around the late Hercynian Shuiquangou alkaline complex in an area of 300 square kilometers. The metallogenic epoch has been determined to be late Yanshanian. Although all exploration work has been conducted around the complex, but no new gold prospecting breakthrough appears in the region. Are there any new types of gold deposits?

The Rb-Sr data and geochemical properties have shown that the Mesozoic volcanic rocks in the region are from upper mantle and lower crust. Besides, there are many alteration zones and exploration pipes in the volcanic rocks which occur in the gold concentrated region. Therefore, the gold prospecting work should be transferred to the hydrothermal active positions. Recently, one of the targets was examined and a new gold prospect has been discovered. A new breakthrough is expected.