Testing Research on Artificial Interlayer for a sandstone uranium deposit

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ABSTRACT:

The characteristics of a sandstone uranium deposit in Inner Mongolia shows that its thickness of water-bearing stratum is great, and the orebearing stratum is thin, which leads to Large dilution of leaching reagent, and the effective solutions is constructing artificial waterproof layer in the hostrock. Following a series of previous investigation in formation injectability, fluid control agent, technology design and separation device, a field test of separation stratum construction and effect check of which were carried on. Research shows that the ability of jam stratum of HPAM-aluminum citrate combination reaches 85％～99％ by indoor experiment, and which in the field test reaches 61.4%、83.3%和 100% with three individual drillhole, two of which were injected polymer and one of which was cement. Inspection hole sampling and physical exploring indicates that the polymer infiltrates along the higher permeable ore stratum, consequently it forms a artificially separation stratum that restricts the fluid within a limit.