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Analysis on Metallogenic Conditions of Polymetallic Ore in Hoh Xil Region: Stratigraphy, Sedimentary and Tectonics

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Hoh Xil is located in the northern of the Tibetan Plateau. Stratigraphic formations belong to the Bayan Har area, mainly for the Hoh Xil-Aba strata partition, widely developed Triassic formation characterized in the shallow metamorphism, major is a clastic flysch sedimentary assemblage, and principal lithologies are feldspar quartz sandstone, feldspathic sandstone, quartz sandstone, argillaceous siltstone and silty slate metamorphosed, locally with minor the conglomerate, mudstone, shale, etc. In negative terrain region, such as river terraces or valleys, generally have better sand deposited gold mineralization. As for this Hoh Xil area, Qingshuihe formation and Gande formation in Triassic are rich ore horizon.

On the other hand, Hoh Xil belonging the first tectonic units of Qiangtang-Sanjiang orogenic system, secondary tectonic units of YulongTage-Bayan Har foreland basin, and the third tectonic units of Hoh Xil-Songpan foreland basin, located in the south of south-Kunlun suture zone, Yang Lake-Xijir Ulan-northern Jinshajiang combined zone. This area is active continental margin with complex tectonic pattern and multi-stage tectonic evolution, providing favorable conditions for the migration of mineral

enrichment. Especially, Bayan Har change into the foreland basin in the Late Triassic Basin, the early Triassic sedimentary basement of the lower may be a oceanic crust construct, the lower crust and mantle rocks contamination occurred in the process of movement. All of these contribute to the formation of gold, silver, molybdenum, tin, lead, zinc and other raw metal minerals.

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