

ON THE GEOLOGIC CHARACTERISTICS OF DEERNI PYRITIC Cu-Co DEPOSIT AND ITS DIFFERENCES FROM CYPRUS Cu DEPOSIT

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Abstract: The Deerni pyritic Cu-Co deposit is located at the middle part of Jishishan uplift, Qinghai. It is distributed along the NW deep fracture zone which controls the magmatic activities and mineralizations. The Cu-Co deposit is closely related to the Indo-Sinian granite which contains accessory minerals such as apatite, zircon, molybdenite, rutile, fluorite, tourmaline, etc. It is a fissure-filling deposit predominately controlled by the deep fracture zone. The orebodies are generally distributed at the upper part of the ultrabasic rock along the schistose zone, intersecting fissures and tension cracks. The Cu-Co deposit exhibits the following characters: (1) stratoid and lenticular orebodies. (2) complex mineral composition and clear criteria of shallow-seated deposit. (3) filling and metasomatic texture. (4) the ore-forming elements are Cu, Co, Zn. (5) well-developed carbonization. It is well known that the Cyprus Cu deposit is quite different from Deerni Cu-Co deposit. We, therefore, can get a conclusion that Deerni Cu-Co deposit is not a massive sulfide deposit of marine volcanic origin but a magmatic hydrothermal deposit related to the Indo-Sinian granite. This deposit is peculiar to Qinghai Province of China and is rarely found in the world.