

Geology, Geochemistry and Genesis of Zn, Pb deposit in Vishan -Tekieh Eastern Arask (Central IRAN)

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Geological survey of IRAN TERAN - IRAN

In VISHAN-TEKIEH (Pb-Zn) deposit in south of Arak is considered to be one of the lower Cretaceous deposits in Esphahan – Malayer metalogenic belt. The ore deposition in Vishan – Tekieh area has been controlled by carbonate facies sequence of tidal flat depositional environment and associated with organic matter (Algal mat.) with ore minerals.

Field and laboratory results suggest that formation of ore occurred in early to late diagenetic stages and can propose a M.V.T stratabound deposit. Tectonical deformations caused boudins and blocks of ore that is simultaneous with supergene stage mineralization in faults fractures and joins.

Field and laboratory facts such as : Absence of bearing sediments of Jurassic in the Vishan – Tekieh and adjacent area and occurrence of volcanic activity (absence of volcanic matter in Shamsabad deposit represent that metals can originate from continental weathering or of distal volcanic. It is also suggested that sulphur is probably deduced by bacterial reduction of sulphate in sea water. In other hand, the lack of sulphate in thin sections and thin polished sections of Vishan – Tekieh deposits are proposed that perhaps fumerols could origin from sulphurs.