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ABSTRACT

The structure and lead-zinc mineralisation of the area around Zavar ($24^{\circ} 22'$; $73^{\circ} 43'$), Rajasthan, India, have been investigated. Analysis of structures of all scales reveals the presence of major folds - upright to 'reclined' (recumbent), with steep northerly plunging axes - on which are superposed a fold system with westward plunging axes. The mineralised shear zone belongs to a still younger generation of structures.

Lead-zinc mineralisation in the dolomite horizon is preceded by a phase of wall-rock alteration displaying vertical zoning. Studies on mineral paragenesis, ore body zoning, direction of flow of mineralising solution, and temperature, pressure, and compositional changes within the ore body indicate lateral and vertical dispersal of a hot ore-bearing medium from two channels of ingress along the shear-zone during its development.

The ore bodies are, therefore, believed to be of hydrothermal origin. Their localisation in a particular shear-zone, in preference to identical structural 'traps' of earlier age, indicates that other factors remaining constant, simultaneity of development of structural 'traps' and ore solution is the most favourable situation for ore deposition.