Geology, Alteration, Mineralization, Geochemistry and Fluid inclusion studies in Namegh prospective area, northeastern Kashmar

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Host rock of vein mineralization in Namegh area is trachyandesite, trachyandesitic tuff and effected by silicified alteration. Primary minerals include specularite, chalcopyrite and magnetite with waste quartz. High anomaly of Fe (up to 10%), Cu (up to 2%) and low values of Au (maximum 20 ppb) are present. Based fluid inclusion studies. formation tempreture of mineralization is between 300 to 496 °C and it is occurred from NaCl- and CaCl₂-bearing fluid with 11 to 22 wt. % NaCl equivalent salinity. Mixing of magmatic and meteoric waters model is the best model for generation of Namegh IOCG vein [1]. This mineralization is occurred at 10 to 60 Mpa pressure and 0.5 to 2 Km depth (assuming lithostatic pressure).

[1] Williams et al. (2003) Geochemical Exploration 78, 617–622