

NEW FOUND TUNGSTEN BELT OF THE LORE UTARA, CENTRAL SULAWESI, INDONESIA.

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The geochemical survey was carried out on the area of Central Sulawesi, Indonesia in 1998 employing the fine stream and heavy concentrated sediment geochemical surveys. The survey followed the regional geochemical exploration in 1996 in which the new anomalies of tungsten were found in the area. According to the results of the current exploration, three promising areas; A, B, C are selected on the base of the standard to choose the areas as follows;. The first is the plutonic rocks distributed in this area such as per-aluminous, calc-alkaline and I-type granite (magnetite series) are closely related with the base metallic and tungsten mineralizations. The second is the mineralogical observations to be useful criteria for the development of tungsten and its associated elements such as gold, tin in promising area A. In particular case of tungsten in promising area A, the abundances of tungsten range from 309ppm up to 0.16 wt% in stream sediments at the creeks. Tungsten mineralization was revealed to be associated with scheelite bearing felsic veins and thin scheelite veinlets infiltrated into the fracture systems of the andesite. The third is that the results of the geochemical exploration such as chemical contrasts of element distributions and factor analysis are consistent with each other. The tungsten abundance of A ranked areas is over 309.8 ppm meanwhile the mean value of tungsten is 25.35 ppm. The abundances of tungsten in fine sand are also range from over A ranked threshold values up to the 1,600 ppm. Factor 3 and Factor 6 related with W-Sn-Pb and Hg respectively are overlapped with the contrasts of elemental distributions. According to the above mentioned criteria, A, B, and C in the studied area are recommended for promising area of tungsten mineralization.