STATISTICAL ANALYSIS OF SURFACE AND SUBSURFACE RADIOOMETRIC URANIUM EXPLORATION DATA, PONTUNG AREA, EAST KHASI HILLS DISTRICT, MEGHALAYA, INDIA: A MULTIVARIATE APPROACH

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Abstract

The radiometric analysis of grab and channel samples of Lower Mahadeck sandstone of Pontung area in the Pynursla Plateau have indicated presence of high uranium concentration though gamma ray logging of exploratory boreholes does not show significant results. To address this anomalous behavior between surface and subsurface data, statistical analyses of grab, channel and subsurface samples were carried out. The results indicate presence of thorium bearing minerals in Lower Mahadeck sandstone and basement granites and confirm the subsurface continuation of three different geological formations.

Keywords: Statistical Analysis, Uranium Exploration Data, Lower Mahadeck Sandstone, Basement Granites, Pontung Area, East Khasi Hills