INNER STRUCTURE OF THE TAG ACTIVE HYDROTHERMAL MOUND (BY ODP MATERIALS)

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Composition of the ores of TAG hydrothermal mound has been studied. The pattern of the mount structure based on the use of factor element associations is used.The major factors reveal the following element associations: ore (Fe-Zn-Pb-S-Au-Ag-Cu-Ga-Ge-Co), siliceous (Si-Al-(Co-Pb) and calcium (Ca-(Cu).The section consists of the ore body, the sample of which dominated by ore association, sub-ore silicified basalts with major siliceous element association and vertical anhydrite zone superimposed both on the ores and basalts.The ore body itself which is located above suggested paleosurface is subdivided into three parts: the surface ores beyond the black smokers areas (pyrite-polymetallic zone enriched in As, Br, U, Y, Tl, Nb, Pb, Au, Sb, Ga, Ag, Zn and TR); central core enriched in anhydrite (pyrite-anhydrite zone, extremely enriched in Ca and Sr); subsurface silicified sulfide ores (pyrite-siliceous zone enriched in Si, Zr, U, Ge). Below paleosurface one distinguishes zones of silicified anhydritized basalts and silicified basalts which differ in contents of Ca and number of rare earth and trace elements as much as order of magnitude.Vertical anhydrite area is traced in the center of the mount down to the deepest layers, the anhydrite the most intensively developing at the level of paleosurface (zone of anhydrite veins). This zone is transitional between sulfide ores with anhydrite of black smokers complex and mount basement.Investigations discovered various pyrite generations distinguished in contents of trace elements, which can also vary for each generation depending on the position in the mount body.