

Volcano Samsar /Djavakheti Upland/: morphology, composition and the products of postvolcanic hydrothermal mineralization

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Volcano Samsar presents one of the most major polygenetic volcanoes in the area of the Javakheti upland, also known as stratovolcanoes. It is located on the Samsari volcanic Ridge, at a height of 3287.7 m.a.s.l. The volcano Samsar has not a preserved summit crater, perhaps, it was destroyed at the final stage of volcanic activity. According to absolute age the formation of the Samsari massif of Late Miocene-Early Pliocene from repeated multi eruptions of Strombolian type activity. In the area of the volcano Samsari clearly observed alternation by repeated eruptions of lava and pyroclastic products. Dominant is lava eruption compared with pyroclastic materials. Composition of eruption products represented by a wide range: andesite, dacite, rhyolite, of which widespread dacite. The final stage of volcanic activity of Volcano Samsar the northeastern slope was formed Caldera diameter 3-4 km with steep south-western slope. In the area of the Samsari volcanic center, we were the first to discover and describe the products of the process of post-volcanic hydrothermal mineralization such as: hematite, parallel banded opal, alunite, cristobalite, selenite, jarosite and mixed-layered silicates of the chlorite-montmorillonite series.