

All of the fragments are from devitrified vitric basalt; probably tachylite which formed at the contacts of the basalt with the country rock. Rapid chilling occurred; a few small vesicles were formed; and most fragments contain minute 0.1 mm crystals of olivine, sparse fine pyrite and pyroxene. Calcite or quartz is present in some of the vesicles.

There are in the fragments, no opaque mineral components, other than sparse fine pyrite.

5205      Serpentinised porphyritic olivine basalt.

This basalt has much the same composition as 5201; but there are slight differences. It is more distinctly porphyritic, since it contains a few olivines and plagioclase of several mm size, as well as occasional clusters of pyroxenes.

The main components are plagioclase and olivine. The finest olivine coexists with 7% ilmenite, 1 - 2% weakly magnetised titano-magnetite, 0.2% pyrite and a trace of fine chalcopryrite. These minerals, together with 5% brown isotropic silicate glass, constitute the mesostasis amongst the randomly-oriented plagioclase and coarser olivine grains.

More extensive serpentinisation was incident in this rock. In addition, despite the presence of larger phenocrysts than in 5201, this basalt underwent a late stage of rapid chilling. This was the cause of the formation of silicate glass in the fine grained mesostasis.

A small magnetic susceptibility can be expected because of the content of titano-magnetite.

806295