

SAMPLE NUMBER: 431480

SUMMARY:

This is an intensely hydrothermally altered formerly felsic lava or lava breccia that has been strongly silica-barite altered with abundant interstitial sphalerite and pyrite.

HAND SPECIMEN:

This is an intensely altered former dacitic lava breccia(?) with vague evidence of a fragmental nature, overprinted by strong silicification of the groundmass and patches and streaks of pyrite, white barite and quartz.

THIN SECTION:

No trace of the original texture of this rock is preserved. It has suffered intense silica-barite-sericite-sulphide alteration. The sample is texturally very heterogeneous with most of the sample being composed of a well-formed polygonal intergrowth of quartz and barite that host large anhedral barite crystals with abundant fluid inclusions, strong internal strain features and subgrain recrystallization in high strain zones. High-strain zones with fibre quartz, elongate and stretched barite crystals and wispy trains of well-crystallized sericite wind through the more polygonal and coarse-grained matrix. Disseminated interstitial sulphides are quite abundant, perhaps making up 5-10 % of the sample overall. These consist of fine-grained pyrite always less than 0.5mm across, often with overgrowths of clear sphalerite; the latter also occurs as discrete grains interstitially.

This sample could originally have been a glassy dacitic lava or lava breccia. It has suffered intense silica-barite-sericite-sulphide hydrothermal alteration and has an almost annealed texture dominated by finer-grained quartz and coarser barite.