The reddish metagranites of the Gennargentu Igneous Complex (Sardinia) represent the thermometamorphic equivalent of micaceous peraluminous granites. They fringe the eastern part of a shallow crustal (\( P = 1.9 \) kbar) late-Permian quartz-dioritic intrusion, emplaced through a number of magmatic pulses. The reddish metagranites display petrographic and geochemical zoning according to the distance from the heat source that induced the thermal event (i.e. the quartz-dioritic intrusion). Of note is a decimetre-thick belt of dacitic rocks that occurs between the reddish metagranites and quartz-diorites. Geochemical-microtextural evidence suggests that these contact rocks resulted from a multi-stage process. The granite basement was initially intruded by a highly evolved melt derived from the differentiation of a deeper quartz-dioritic magma. Within the contact rocks, spectacular granophyric intergrowths coupled with cumulus-textured domains of albite plagioclase indicate that the solidified evolved magma was partially re-mobilised by a younger quartz-dioritic pulse, which also formed a \( \text{SiO}_2\text{-K}_2\text{O} \)-rich silicate melt. This process was fostered by the stresses induced by the intruding quartz-dioritic melt and by the large amount of heat supplied (\( \text{Templac} \text{ement} \cong \text{1030-1050}^\circ\text{C} \)). The effect of the \( \text{SiO}_2\text{-K}_2\text{O} \)-rich silicate melt on the granitic wall-rocks, evident up to two hundred meters from the contact, is constrained by: i) K-feldspar modal increase (overgrowths), and ii) the equilibration of quartz, partly re-crystallised and partly newly crystallised, with the percolating magma as indicated by the systematic variation of \( \delta^{18}\text{O}_{\text{Qtz}} \). This evidence highlights the mobility of the high temperature \( \text{SiO}_2\text{-K}_2\text{O} \)-rich silicate melt, whose upward migration contributed to the Permian acid volcanism of the Gennargentu area.