

TABLE 7.—FACTORS CONSIDERED IN DEFINITION, MAPPING, AND CORRELATION OF GRANITE UNITS

	Informational Content
	+ = reflects primary feature; - = modifies primary feature
I. <u>Internal to Granite Bodies</u>	
<i>Order of crystallization:</i>	+ bulk composition; PT conditions - flowage differentiation
<i>Mineral assemblage:</i>	+ bulk composition; PT conditions - post-magmatic changes
<i>Texture:</i>	+ cooling rate; volatiles; pressure - complex relations; post-magmatic changes
<i>Layering:</i>	+ original body shape; intrusive style - localized
<i>Fracture patterns:</i>	+ original body shape; intrusive style - later tectonic activity
<i>Geochemistry:</i>	+ original source - same source; late volatile transfer; weathering
II. <u>External to Granite Bodies</u>	
<i>Contacts:</i>	+ order of intrusion - remobilization
<i>Similarity of units:</i>	+ similar physical setting related in time - settings not in time pattern
<i>Volcanic-tectonic setting:</i>	+ style in which units occur - mixed settings; previously unknown setting

although Huang (1958) reported the two together at one locality in the Quanah. Other primary phases noted are ferroaugite (Thornton, 1975), acmite, zircon, monazite, sphene, fluorite, and apatite. Myers and Gilbert have examined feldspars by the electron microprobe and find typical core-to-rim traverses as shown in figure 9. The four data groups in the lower part of the figure represent point determinations across four individual grains in the rock. The determinations are expressed in mole percent on the feldspar ternary diagram. The An component is very low, and therefore only the bottom part of each triangle is shown. The spatial relations of the point determinations in a core-to-rim traverse are shown in the upper part of the figure for the first data-set down. Essentially, the feldspar is completely exsolved to very pure Or- and Ab-rich end members, reflecting a low temperature of equilibration (<350°C). The scale of the exsolution in some cases is,

as shown in the lowest data-set, approximately that of the electron beam (~1 μ m), accounting for the apparent range of intermediate compositions.

The bulk-rock chemistry of the Wichita Granite Group was discussed by Myers and others (1981). Myers and Gilbert (1980) had noted that when careful determinations were plotted on variation diagrams a natural clustering of three groups resulted (fig. 10). One of these clusters, the most SiO₂-poor, came from only Mount Scott Granite samples. This igneous class was named the "Mount Scott." A restricted set of determinations that plotted between 74 and 75 weight percent SiO₂, derived mostly from samples of Reformatory Granite (in the western province), was called the "Reformatory" class. The most silica-rich cluster came from samples from a variety of named granites, and so this class was named "Mountain Park," after the small town near the area of some of the analyzed samples. The range of chemi-