cy of fractures is plotted against their lengths. The most prominent length is 500 m, but there are distinct peaks at 250–m intervals. There does not seem to be any artifact of the measuring process that could give this result. Lengths are obviously a function of outcrop dimensions. The granite is bounded by Permian rocks (and by gabbro), but the area measured has the greatest outcrop continuity in the Wichitas. Thus, the fracture lengths are minimums, but periodicity in lengths should not be affected. This result is provisionally interpreted here as a function of thickness of the granites. Most of the measurements are from the Mount Scott Granite, which has a demonstrable sheet form. Independent measurements of the thicknesses of Wichita granite sills range from 600 ft to 1,500 ft in wells (Ham and others, 1964). No upper boundary on the granites can be seen from surface relations. An estimate of ½ km or less for the thickness had been used independently by me on the basis of petrographic characteristics and evidence of surface-breaking at times during emplacement. The fractures appear to indicate a minimum thickness of 250 m for the granite sill, with a maximum of perhaps 500 m.

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