

TABLE 21.—GENERAL FEATURES OF REID'S PIT AREA (STOP 1)

Reference Segments	Feature
E-13	Excavation within the GCG but apparently reaching the eastern terminus of the body. Features not studied in this area.
E-14 Upper	Includes most prominent hill (1600+') with intrusive contact between GCG and GMLC well displayed just south of the crest of the hill. A prominent dipping granitoid dike exposed in pit south of hill. "Basic pegmatoid" and Permian-altered GMLC (Tepee Creek-style weathering) on east slope of hill. On SW excavated side, spheroidally weathered GCG boulders in place. In saddle between E-14 Upper and Middle, where road enters pit, is a subhorizontal dike of Cold Springs Breccia cut by nearly vertical late diabase.
E-14 Middle	Our best exposure of GCG intruding GMLC. Figured in Powell and others (1980, Part II, fig. 14), by <u>Oklahoma Geology Notes</u> as the cover, v. 38, #4 (Gilbert, 1978), and here as Fig. 79. The sharp contact overall dips steeply to the north cross-cutting layering in the GMLC. The contact is highly angular in places. Local layering in GCG is at a low angle to the contact. Small fragments of GMLC, elongated parallel to internal layering, are now aligned with GCG layering. Well-displayed, in place, spheroidal corestones of GCG in excavated wall. Subhorizontal dike of Cold Springs Breccia cuts both GCG and GMLC.
E-14 Lower	The pit here drops in elevation 3 to 10 m and has a projection off to the north. Figure 80 shows a horizontal dike of Cold Springs Breccia intruding GCG, both subsequently cut by a thin vertical late diabase dike on which there is offset. The Cold Springs dike bifurcates subhorizontally at the GMLC-GCG contact on the north wall of the pit (Fig. 81). To the immediate east of that figure, in a NE corner of the excavation, are biotite microgabbro dikes cutting GCG, themselves cut and offset by granitoids associated with the Cold Springs (Fig. 82). To the west, the GCG-GMLC intrusive contact is again beautifully clear (Fig. 83). The excavated projection to the north exposes a vertical late diabase dike on the eastern wall cross-cutting both vertical and horizontal parts of the Cold Springs Breccia (Fig. 84). Fractures in the late diabase dikes are perpendicular to walls (Fig. 85) presumably due to cooling against quite lower temperature host rocks, implying considerable time hiatus since Cold Springs and earlier igneous events. The steeply dipping, large Cold Springs Breccia dike on the west wall of the excavated arm shows some left-lateral strike-slip offset (Fig. 86, and cover of Guidebook). This dike T's into the horizontal Cold Springs dikes, and its granitoid offshoots contain fragments of the host GMLC (Fig. 87). Finally, spheroidal weathering of GMLC rocks yields rounded but more angular blocks due to the stronger internal layering (Fig. 88) compared to the somewhat more homogeneous GCG (Fig. 89).
West-14	"Basic pegmatoid" pods are common. The Ti-Fe oxide-olivine prospect (magnetite pit) is exposed (Fig. 96). A Cold Springs Breccia dike with granitoid offshoots, sample locality W711, is being studied, and chemical data will be available later.