The Southeast Ceres field is located in north central Oklahoma in the central part of Noble County and extends 5½ miles northeast-southwest from sec. 13, T. 23 N., R. 1 W., to sec. 9, T. 22 N., R. 1 W.

C. C. Harwell and associates No. 1 Greer, the discovery well drilled in January, 1947, in the SW¼ SW¼ SW¼ sec. 24, T. 23 N., R. 1 W., opened up the north end of the field called the Southeast Ceres field. The discovery well was drilled on a surface nose which was confirmed by core drilling. In April, 1947, Kingwood Oil Co. No. 1 Bolay in the SW¼ SW¼ NW¼ sec. 35, T. 23 N., R. 1 W., opened the South Ceres field extending production 1½ miles southwest. In June, 1948, B. B. Blair No. 1 Rolling, NE¼ NE¼ NW¼ sec. 9, T. 22 N., R. 1 W., opened the Southwest Ceres field extending production 1¾ miles farther southwest. The three separate areas are now connected, forming the Southeast Ceres field which is producing from one formation, the Burbank "shoestring" sand.

The Burbank sand is in the lower part of the Cherokee shale of early Pennsylvanian age and occurs at an average depth of 4,500 feet in the Southeast Ceres field. The Burbank sand is younger than the true Bartlesville sand which is producing in the vicinity of Bartlesville. The Burbank "shoestring" sands form important reservoirs in Greenwood and Butler Counties, Kansas. The Burbank field in Osage County, Oklahoma, is believed to be producing from both the Burbank and Bartlesville sands in close contact. The bottom five feet or more of the Burbank sand, which becomes very calcareous, may be equivalent to the Inola lime found between the Burbank and Bartlesville sands.

The upper portion of the Burbank sand in the Southeast Ceres field is medium fine- to very fine-grained, shaly and tight. It contains oil but commercial production is not obtained from this part of the sand. However, the oil string is usually cemented near the top of the shaly sand. The good pay sand just below averages about 36 feet in thickness with a maximum thickness of 54 feet in the Sinclair-Prairie Oil & Gas Company No. 3 Steichen in the NW¼ NW¼ NW¼ sec. 3, T. 22 N., R. 1 W. (see fig. 1). The porosity of the pay sand averages 20% and the permeability averages about 150 millidarcys but in some parts exceeds 700 millidarcys. The pay sand is medium to coarse, angular but not sharp, and micaceous; buff clay is present in some of the pore spaces and around some of the sand grains. The high percentage of water saturation shown by the core analyses is due to...