Ground-Water Resources of Osage County, Kansas

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By Howard G. O'Connor, 1954

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R13E R14E R15E R16E R17E

T14S T15S T16S T17S T18S

EXPLANATION

- Domestic and stock well
- Public supply well
- Test hole

Dr (a) 8 (b) ○ 57.39 (c) 200 (d) — Brackets indicate water analysis is given.

Severy sh and/or Calhoun sh (e)

(a) Type of well: Dr., drilled; Du., dug, DD, drilled and dug

(b) Diameter of well, in inches

(c) Depth to water level below land surface, in feet. Reported depth shown to nearest tenth of foot; measured depth shown to nearest hundredth of foot

(d) Depth of well below land surface, in feet. Reported depth shown to nearest foot; measured depth shown to nearest tenth of foot

(e) Principal aquifer or aquifers

Ground-Water Regions

A — Region A

The principal aquifers are the alluvium and low-terrace deposits of gravel, sand, silt, and clay. Thickness of these deposits ranges from about 40 feet in Marais des Cygnes River valley to less than 5 feet in small tributary valleys. Wells yielding 10 to 50 gallons of water per minute can be developed in the Marais des Cygnes River valley and parts of Salt Creek, Dragoon Creek, and One Hundred and Ten Mile Creek valleys; smaller supplies are available in other stream valleys. The water is hard but otherwise of good quality.

B_1 — Region B Area B_1

The principal aquifers are the sandstones and sandy zones in shales. Wells range from about 60 feet to less than 30 feet in depth. Throughout most of this area, an adequate and dependable supply of good-quality water is difficult to obtain. Ponds and cisterns are important supplements to ground-water supplies.

B_2 — Region B Area B_2

Aquifers are chiefly sandstone beds in the White Cloud and Severy shales. Wells obtaining ground water from these formations range in depth from about 60 to 240 feet. Yields are reported to range from ½ gallon a minute to as much as 20 gallons a minute. Quality of water is generally good. Shallow wells comparable in quality, depth, and yield of water to those in Area B_1 are also found in Area B_2.

C — Region C

Ground water is obtained from the joints and fractures of the limestones and shales of the Shawnee group chiefly from dug wells 15 to 60 feet in depth. Locally beds of sandstone in the Calhoun and Kanwaka shales supply ground water to wells at depths ranging from 40 feet to 150 feet. Water obtained ranges from soft sodium bicarbonate water from the sandstones to hard calcium bicarbonate water from the limestones and shales. Yields of wells range from only a few gallons a day to about 10 gallons a minute. Cisterns and ponds are important supplements to ground-water supplies.

D — Region D

The principal aquifer is the Ireland sandstone member of the Lawrence shale. Nearly all wells in the Ireland sandstone are drilled wells that range from about 80 to 350 feet in depth. Yields range from about 1 to 40 gallons a minute. Water obtained from the Ireland sandstone is generally a soft sodium bicarbonate water with enough chloride in some areas to give a slight saline taste to the water.

Drafting by Sally Asbury

Scale in miles 0 2 3