AREAL GEOLOGY OF PART OF ARKANSAS RIVER VALLEY

With Geologic Profile and Water-Table Contours, 1945 Bulletin 64 Part 5 State Geological Survey by Charles C. Williams Plate 1 of Kansas R. 5 W. R. 6 W. <u>▲ [23]</u> |557 (25) Ø 1557 [24] |554**:4** 22 <u>[52]</u> |5|8**∆** C H I N S O N 0 87 [59] | |503 **4** T. (65) **©** 1507 23 <u>[70]</u> |49| 🔥 Qmc EXPLANATION Water-table contours based on instrumen-O Domestic well PLEISTOCENE RECENT O City-supply well --- Federal or State highway Qal Qmc Industrial well Alluvium McPherson formation Gravel, sand, and silt comprising Pleistocene stream deposits bordering the flood plain of Ackansas River. The McPherson formation yields moderate to large supplies of water to municipal, industrial, and pri-Gravel, sand, and silt comprising stream deposits in the Arkansas and Little Arkansas River valleys and in the valley of Cow Creek. The alluvium yields large supplies of hard, brackish water to wells in the Arkansas valley. ✓ Stream measurement station vate wells. The chemical character of the water in the McPherson ranges between wide limits. 12 Upper number is well number in well tables. Brackets around upper number [12] indicate complete analysis of water; upper number in parentheses (51) indicates partial analysis of water. Lower number is altitude of water RECENT AND PLEISTOCENE 24 Intermittent stream Qds Fine to medium eolium and the layers of silt and clay locally. The sand dunes yield small quantities of water to domestic and stock wells and constitute a valuable intake area for ground-water recharge. Water from the dune sand is soft, but contains much iron. Scale, in miles Base map prepared from large-scale aerial photographs (U. S. Department of Agriculture photographs) 1560 Water table Arkansas River Cow Creek 1480 formation (Geologic profile across Arkansas River Valley, along line $\mathsf{A}-\mathsf{A}'$ 1400 -Horizontal scale, in miles