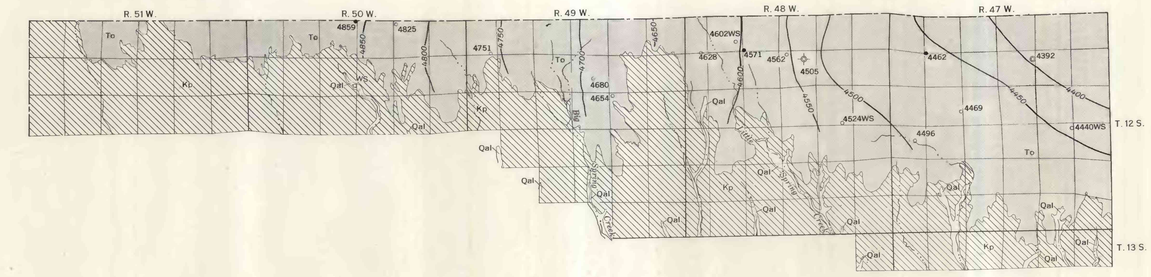

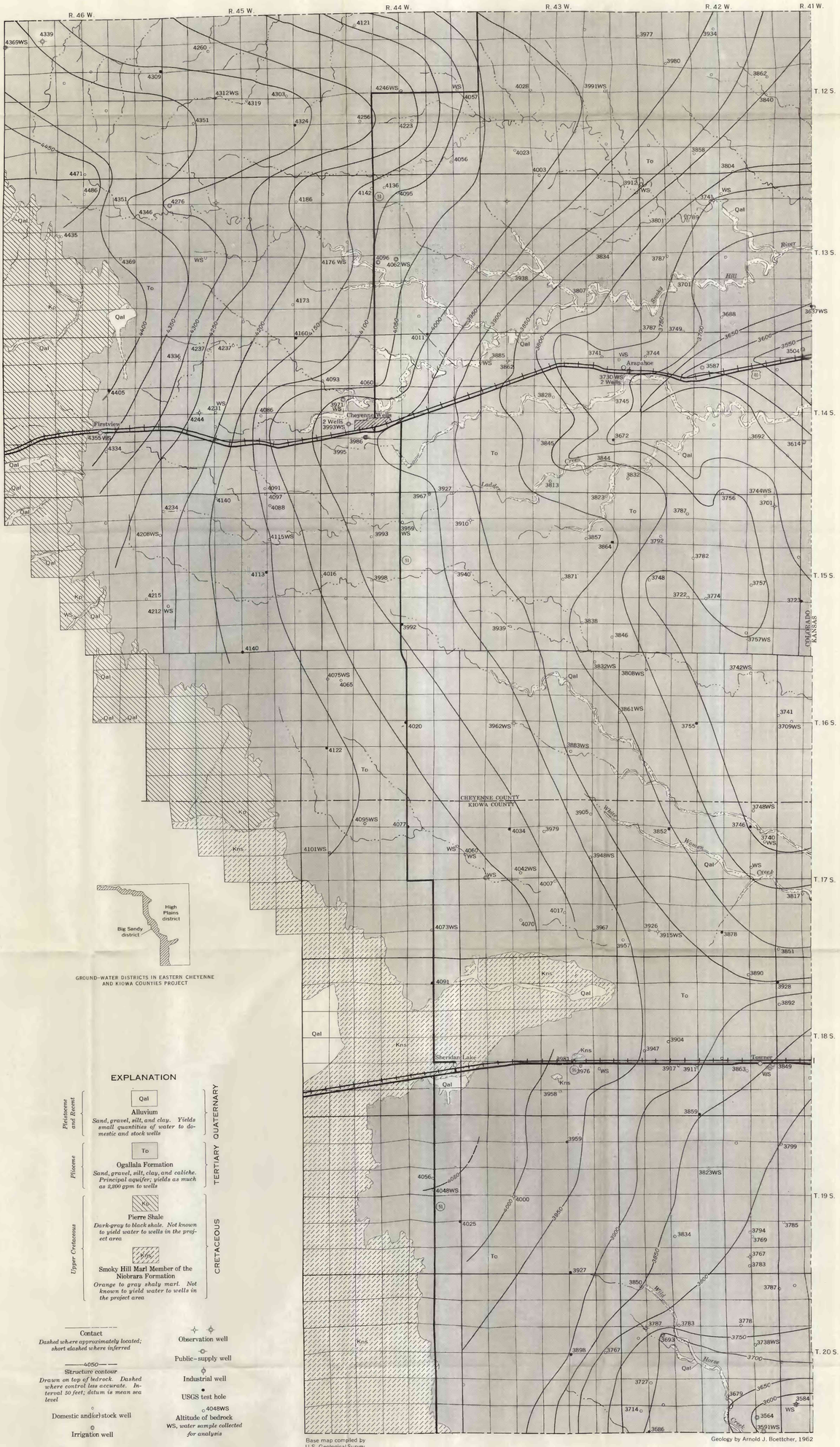

GROUND-WATER DISTRICTS IN EASTERN CHEYENNE AND KIOWA COUNTIES PROJECT

EXPLANATION

QUATERNARY — Pleistocene and Recent

Qal — Alluvium
Sand, gravel, silt, and clay. Yields small quantities of water to domestic and stock wells

TERTIARY — Pliocene

To — Ogallala Formation
Sand, gravel, silt, clay, and caliche. Principal aquifer; yields as much as 2,000 gpm to wells

CRETACEOUS — Upper Cretaceous

Kp — Pierre Shale
Dark-gray to black shale. Not known to yield water to wells in the project area

Kns — Smoky Hill Marl Member of the Niobrara Formation
Orange to gray shaly marl. Not known to yield water to wells in the project area

Contact
Dashed where approximately located; short dashed where inferred

4050 — Structure contour
Drawn on top of bedrock. Dashed where control less accurate. Interval 50 feet; datum is mean sea level

Domestic and(or) stock well

Irrigation well

Observation well

Public-supply well

Industrial well

USGS test hole

4048WS — Altitude of bedrock
WS, *water sample collected for analysis*

Base map compiled by U.S. Geological Survey

Geology by Arnold J. Boettcher, 1962

GEOLOGIC MAP SHOWING LOCATION OF WELLS AND TEST HOLES AND THE CONFIGURATION OF THE BEDROCK BENEATH THE OGALLALA FORMATION IN EASTERN CHEYENNE AND KIOWA COUNTIES, COLORADO

2 1 0 2 4 6 MILES

2 1 0 2 4 6 KILOMETERS

735-015 O - 64 (In pocket)