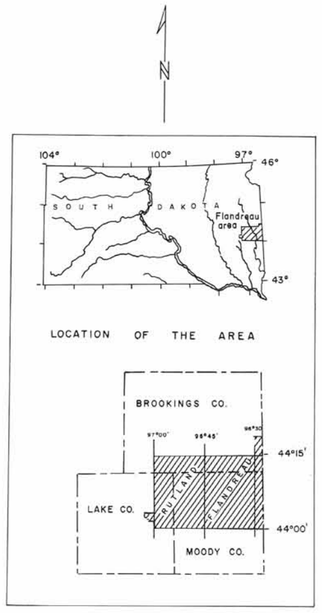
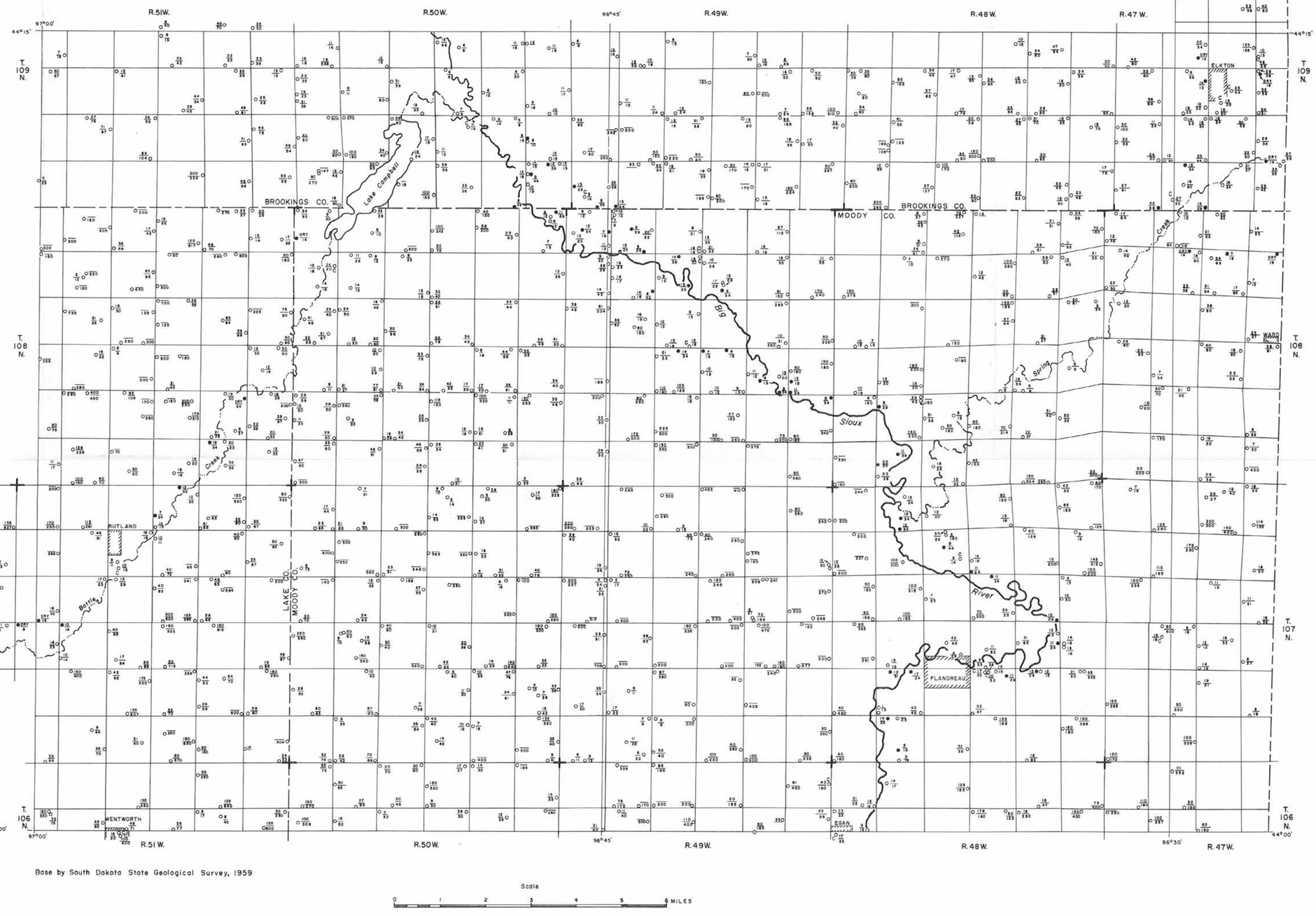
SOUTH DAKOTA GEOLOGICAL SURVEY
ALLEN F. AGNEW, STATE GEOLOGIST

Prepared in Cooperation with
the U.S. Geological Survey

REPORT OF INVESTIGATIONS 87
PLATE I





EXPLANATION

- ○ Well
- ● Test hole
- c Chemical analysis available
- 40/60 Depth to water / Depth of well

Base by South Dakota State Geological Survey, 1959

Scale
0 1 2 3 4 5 6 MILES

MAP OF THE FLANDREAU AREA SHOWING LOCATION OF WELLS AND TEST HOLES, DEPTH OF WELLS, AND DEPTH TO WATER

DRAFTED BY PAM KUCERA

Geologic Map of the Flandreau Area

EXPLANATION

QUATERNARY

RECENT

Qal
Alluvium
(Silt, sand, and gravel along the Big Sioux River and its tributaries)

PLEISTOCENE — WISCONSIN

Qwco
Cary outwash
(Silt, sand, and gravel forming valley trains, alluvial fans near Elkton, and terraces about 30 feet above present stream beds along the Big Sioux River and tributary valleys)

Qwcg
Cary ground-moraine deposits
(Sandy till, gray to brownish-or greenish-gray; generally rolling surface; locally contains sand lenses)

Qwce
Cary end-moraine deposits
(Boulder-clay till, gray to bluish-, greenish- and brownish-gray; ridgelike, locally contains sand lenses)

Qwto
Tazewell ? outwash
(Sand and gravel forming terraces about 15 feet above present drainage)

Qwtg
Tazewell ? ground-moraine deposits
(Pebble-clay till, gray to brownish-gray, somewhat fissile; less oxidized than Iowan ? and higher topographically; locally contains sand lenses; drainage well developed)

Qwig
Iowan ? ground-moraine deposits
(Pebble-clay till, gray to brownish gray; some bluish to blackish-gray; compact; mostly oxidized; drainage well integrated; topography undulating; locally contains sand lenses)

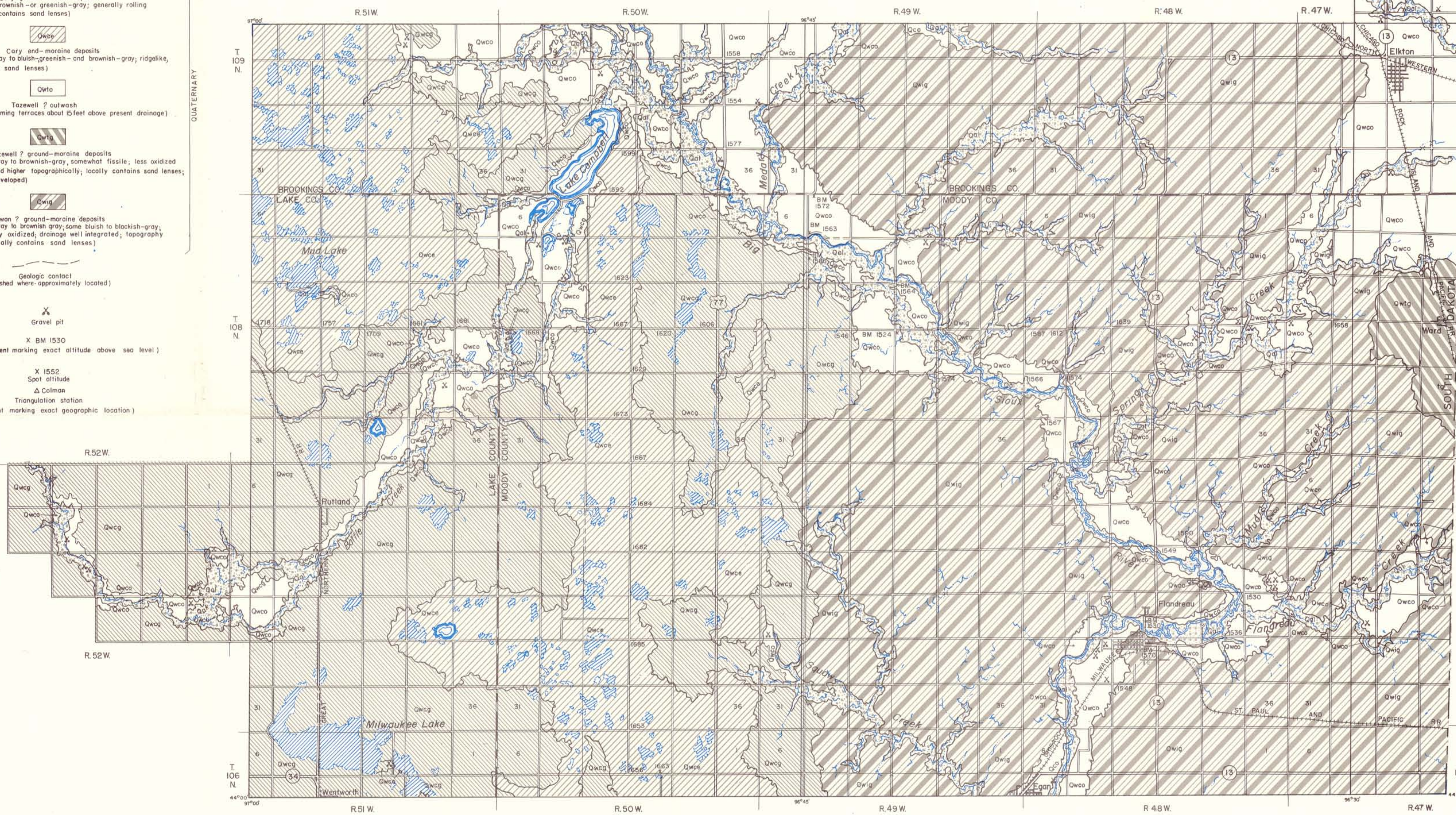
Geologic contact
(Dashed where approximately located)

Gravel pit

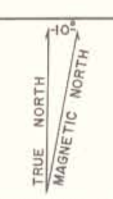
X BM 1530
Bench mark (monument marking exact altitude above sea level)

X 1552
Spot altitude

△ Colman
Triangulation station
(Monument marking exact geographic location)



Geology mapped by K.Y. Lee, 1958
Assisted by Cecil Harris
Base by South Dakota State Geological Survey
Vertical and horizontal control surveyed from triangulation stations and level lines of Federal Surveys
Drafted by H. D. Wong, 1960

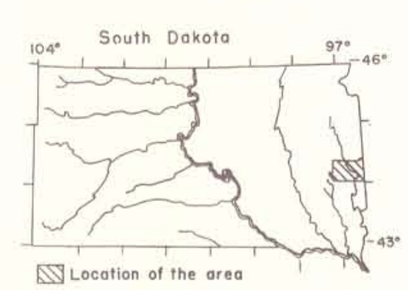


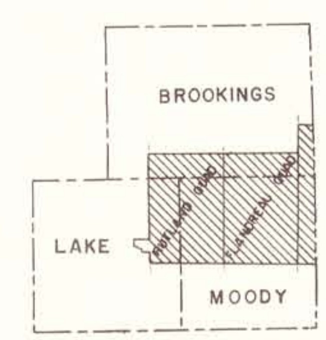
APPROXIMATE MEAN DECLINATION 1958

Scale 1:62 500

0 1 2 3 4 5 Miles

Vermillion South Dakota
1960





Location of the Area

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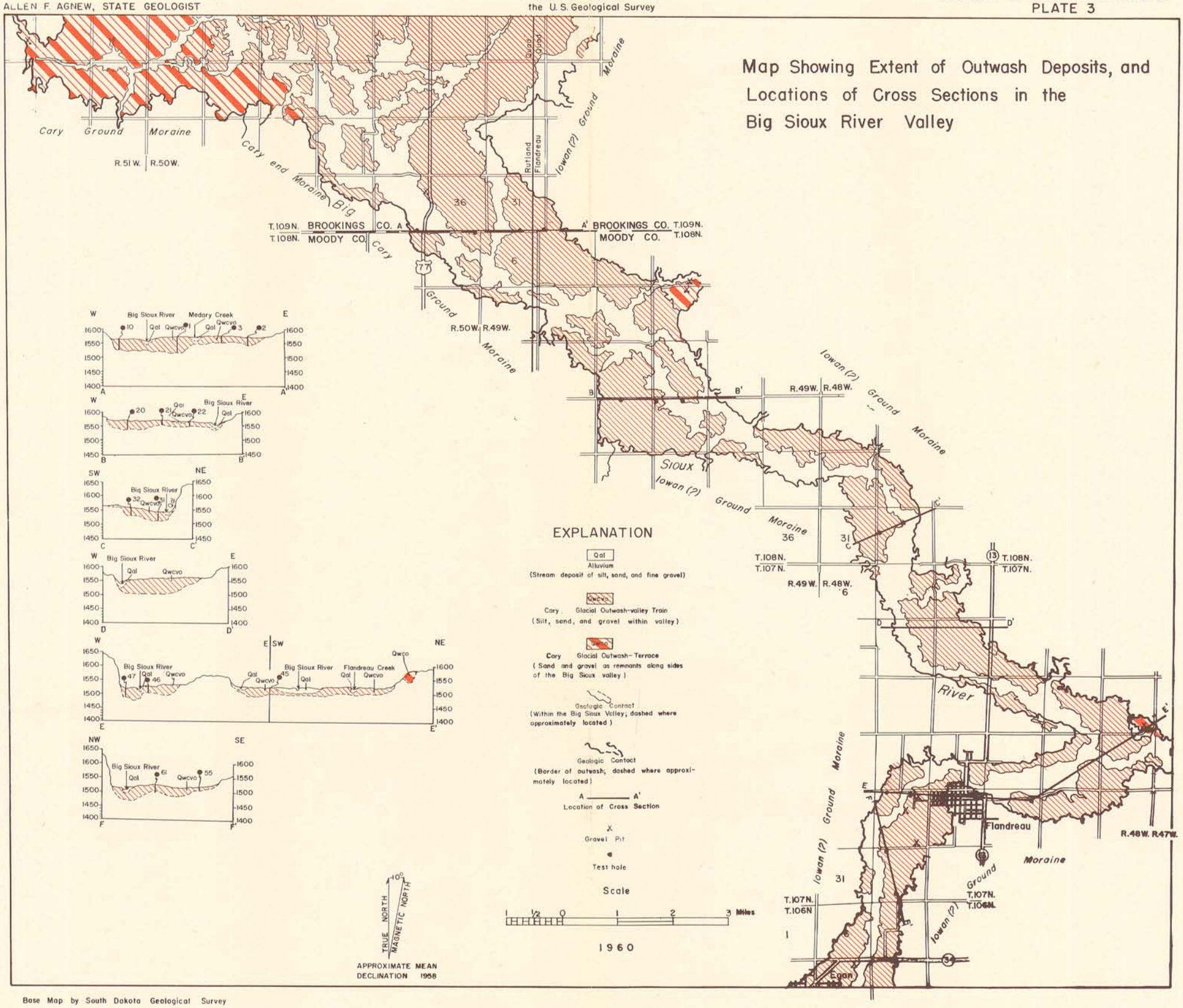
PLATE 3

Map Showing Extent of Outwash Deposits, and Locations of Cross Sections in the Big Sioux River Valley



Base Map by South Dakota Geological Survey