

EXPLANATION

Qal

Alluvium

Qw

Wind-blown sand
May include deposits of possible alluvial origin

Qtg

Terrace gravel

Kc

Carille shale

Dark-gray marine shale, in part calcareous. Limestone concretions abundant in upper 40 feet, fossiliferous silty concretions in middle

Kg

Greenhorn limestone

Slabby grayish-yellow limestone 15 to 30 feet thick, containing abundant *Inoceramus labiatus*. Calcareous shale above and below mapped with Carille and Belle Fourche shales

Kbf

Belle Fourche shale

Dark-gray marine shale. Includes zone 70 feet thick of large manganoferite concretions at base

Km

Mowry shale

Medium-gray marine shale. Sandstone dikes and masses indicated by crenulated line and s

Ksc

Skull Creek shale

Dark-gray marine shale

Kfr			
s	st	ss	S ₅

Fall River formation
s, sandstone; st, siltstone; ss, sandstone and siltstone interbedded. S₅ is a fine-grained grayish-orange crossbedded cliff-forming sandstone designated S₅ on previous maps of adjacent areas. Basal ss contains uranium in adjacent areas

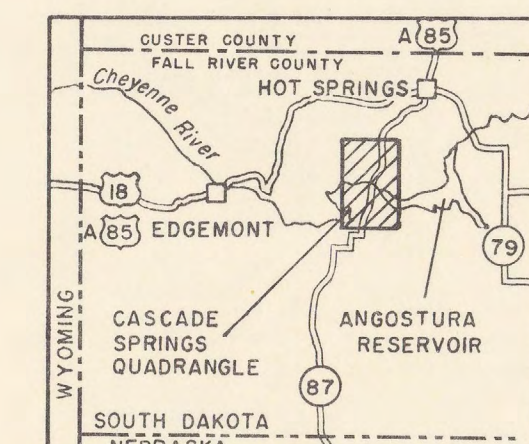
Dashed where approximately located

Indefinite or inferred contact

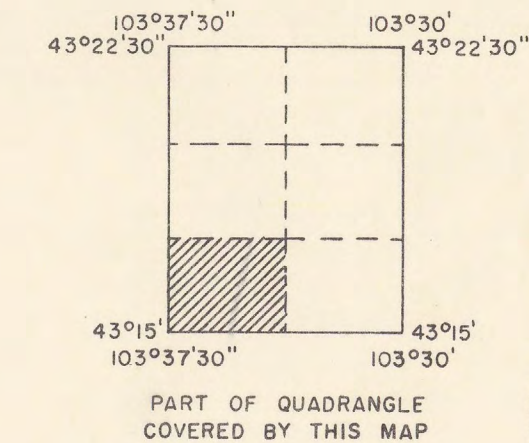
Top of Fall River formation
Dashed where approximately located

Limit of exposure
"e" indicates exposure. Exposures mapped only in Inyan Kara group

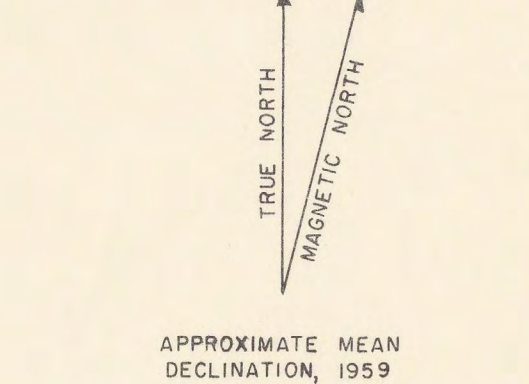
2800
Structure contour
Drawn on top of unnamed lower unit of Lakota formation, Inyan Kara group; interval 50 feet; datum is mean sea level. Dashed where unnamed lower unit of Lakota formation is buried



INDEX MAP SHOWING LOCATION
OF CASCADE SPRINGS QUADRANGLE



PART OF QUADRANGLE
COVERED BY THIS MAP



APPROXIMATE MEAN
DECLINATION, 1959

PRELIMINARY GEOLOGIC AND STRUCTURE MAP OF THE SOUTHWEST PART OF THE CASCADE SPRINGS QUADRANGLE, FALL RIVER COUNTY, SOUTH DAKOTA

By
Edwin V. Post

Scale 1:7200

1000 0 1000 2000 3000 Feet

Contour interval 10 feet
Datum is mean sea level

1959

South Dakota (SW Cascade Springs quad.) Geol. 1:7200 1959.
cop. 1.

Topography by U. S. Geological Survey by
multiplex methods from aerial photographs

Geology by E. V. Post, assisted by W.
B. Bryan and D. W. Lane, 1955, and
D. W. Lane, 1956