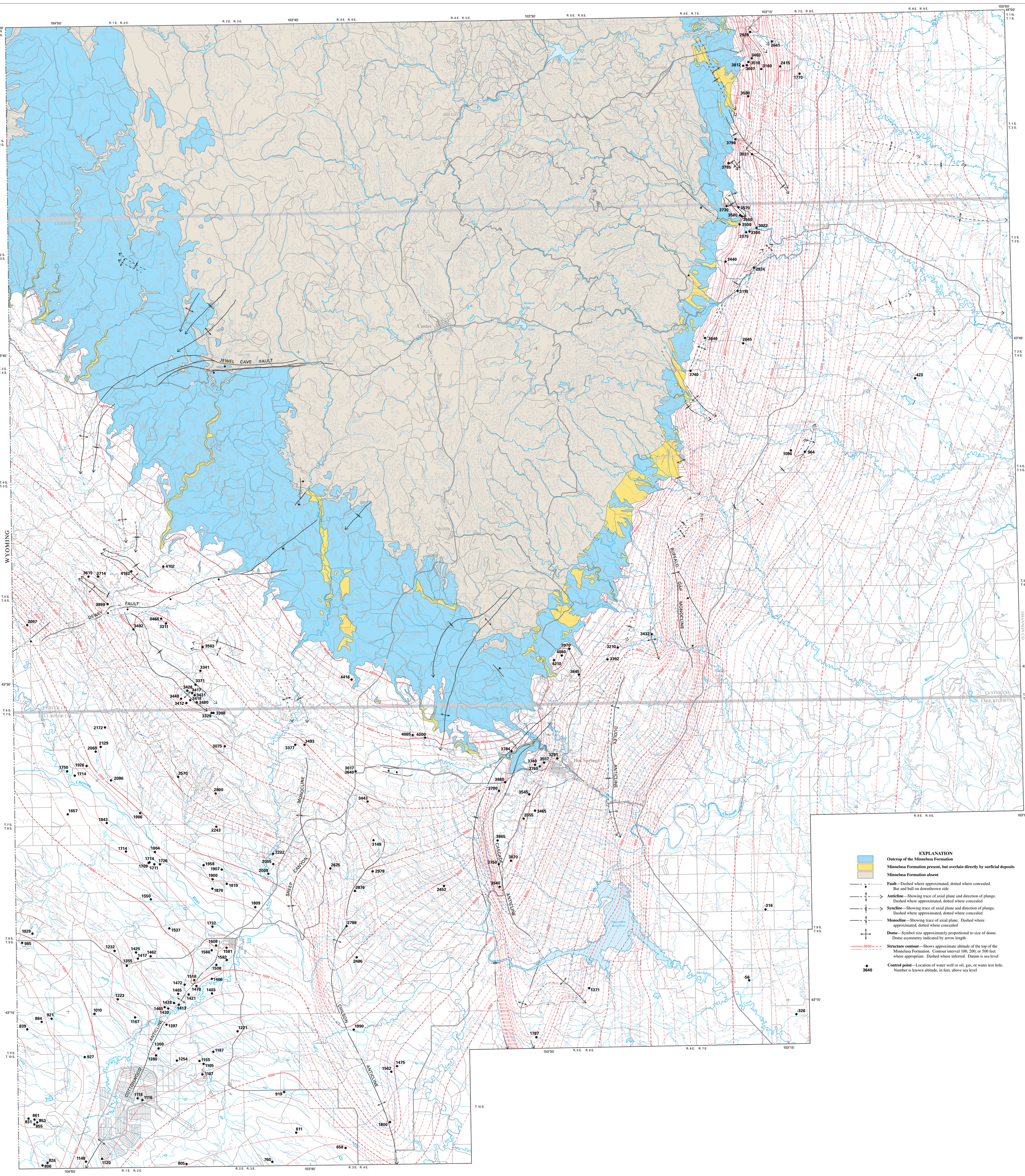
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
AND THE WEST DAKOTA WATER DEVELOPMENT DISTRICT

HYDROLOGIC INVESTIGATIONS ATLAS HA-744-C
Southern part of area —SHEET 2 OF 2
Carter, J.M., and Redden, J.A., 1999, Altitude of the Top of the Minnelusa Formation in the Black Hills Area, South Dakota



EXPLANATION

- Outcrop of the Minnelusa Formation
- Minnelusa Formation present, but overlain directly by surficial deposits
- Minnelusa Formation absent
- **Fault**—Dashed where approximated, dotted where concealed. Bar and ball on downthrown side
- **Anticline**—Showing trace of axial plane and direction of plunge. Dashed where approximated, dotted where concealed
- **Syncline**—Showing trace of axial plane and direction of plunge. Dashed where approximated, dotted where concealed
- **Monocline**—Showing trace of axial plane. Dashed where approximated, dotted where concealed
- **Dome**—Symbol size approximately proportional to size of dome. Dome asymmetry indicated by arrow length
- 2000 **Structure contour**—Shows approximate altitude of the top of the Minnelusa Formation. Contour interval 100, 200, or 500 feet where appropriate. Dashed where inferred. Datum is sea level
- 3640 **Control point**—Location of water well or oil, gas, or water test hole. Number is known altitude, in feet, above sea level

Planimetric base from U.S. Geological Survey digital data, 1:100,000: Hot Springs, 1985; Lance Creek, 1981; Mt. Rushmore, 1977; Newcastle, 1979
Topographic base modified from U.S. Geological Survey digital data, 1:24,000, from maps dated 1950-84
Universal Transverse Mercator projection
Zone 13
North American Horizontal Datum 1927

SCALE 1:100,000
2 0 2 4 6 8 10 MILES
2 0 2 4 6 8 10 KILOMETERS
LAND SURFACE CONTOUR INTERVAL 200 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

For sale by the U.S. Geological Survey
Branch of Information Services
Box 25286, Denver, Colorado 80225-0286

Altitude of the Top of the Minnelusa Formation in the Black Hills Area, South Dakota

By
Janet M. Carter and Jack A. Redden

1999

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