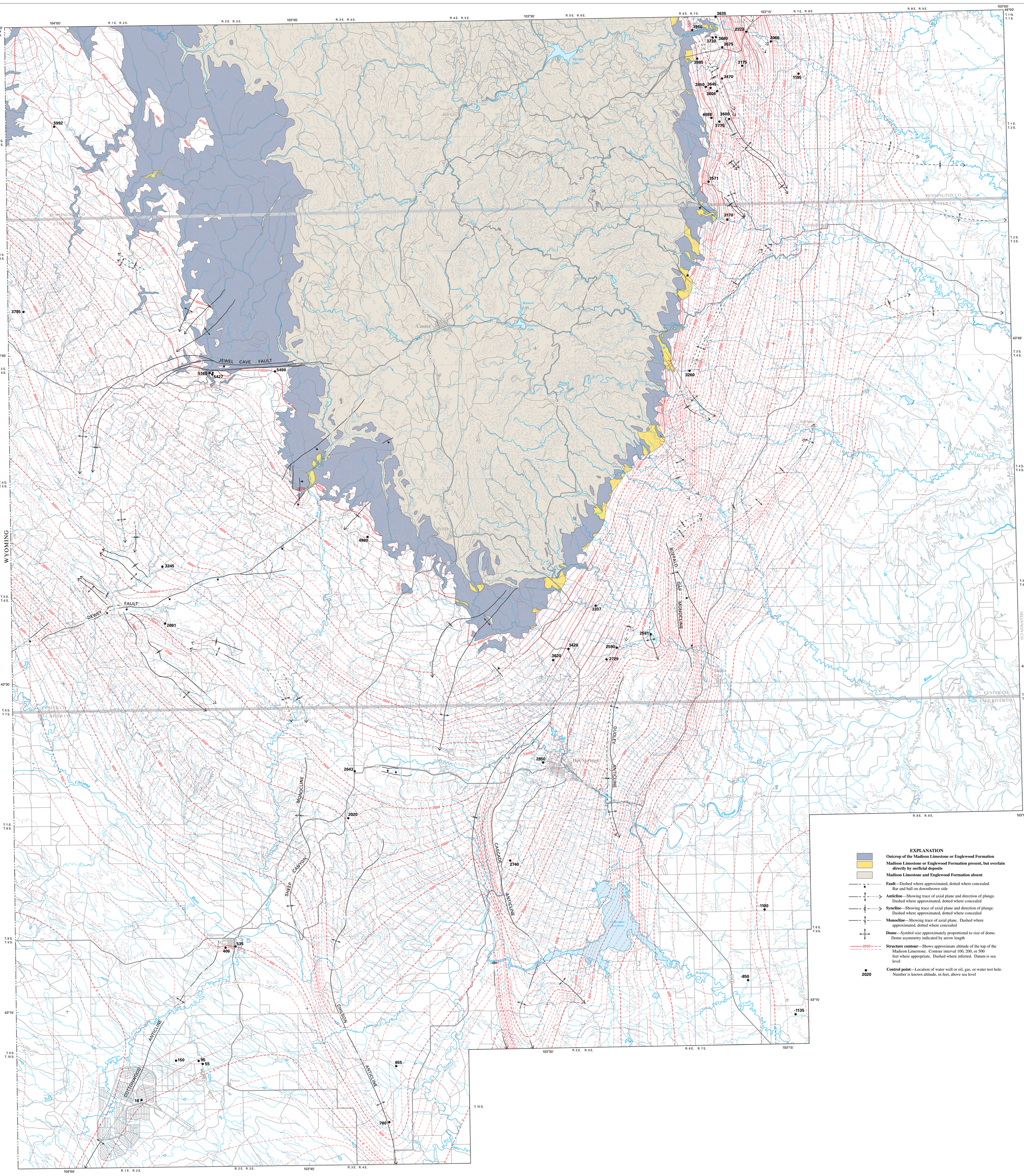
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

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-D
Southern part of area —SHEET 2 OF 2
Carter, J.M., and Redden, J.A., 1999, Altitude of the Top of the Madison Limestone in the Black Hills Area, South Dakota



EXPLANATION

Outcrop of the Madison Limestone or Englewood Formation

Madison Limestone or Englewood Formation present, but overlain directly by surficial deposits

Madison Limestone and Englewood 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 Madison Limestone. Contour interval 100, 200, or 500 feet where appropriate. Dashed where inferred. Datum is sea level

2020 **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

For sale by the U.S. Geological Survey
Branch of Information Services
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Altitude of the Top of the Madison Limestone in the Black Hills Area, South Dakota

By
Janet M. Carter and Jack A. Redden

1999

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