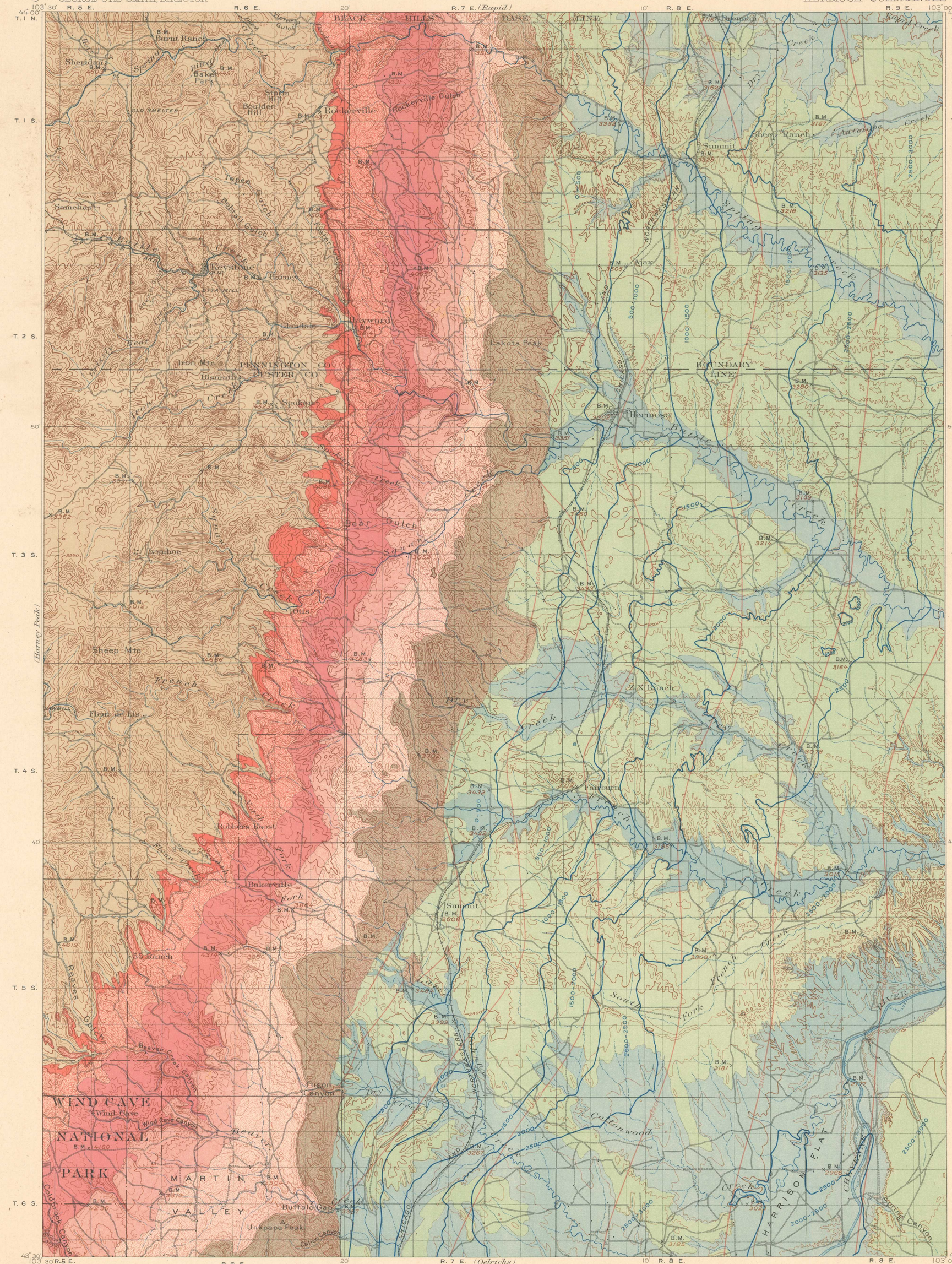
DEPARTMENT OF THE INTERIOR
ALBERT B. FALL, SECRETARY
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

# ARTESIAN WATER

SOUTH DAKOTA
HERMOSA QUADRANGLE




## EXPLANATION

*Area of Dakota sandstone that will probably yield flowing wells*
(Flowing water may be expected from 25 to 200 feet below the top of the formation.)

*Area of Dakota sandstone that will probably yield pumping wells*

1000 — 1500 — 1500
*Depth to top of Dakota sandstone*

3200
*Contour lines showing head or approximate altitude above sea level to which artesian water in Dakota sandstone may rise*

*Outcrop of Dakota and associated underlying sandstones*
(Area in which surface waters enter water-bearing strata; in part covered by Tertiary and Quaternary deposits.)

| Outcrop | |
|---|---|
| 0–350 | |
| 350–800 | Outcrop |
| 800–1300 | 0–500 |
| 1300–2000 | 500–1200 |
| 2000–2400 | 1200–1500 |
| *Outcrop of and depths to Deadwood sandstone* | *Outcrop of and depths to Minnelusa sandstone* |

(Flowing water may probably be obtained in valleys from the Minnelusa sandstone or the underlying Deadwood sandstone at depths indicated. The formations also underlie region to the east at gradually increasing depths. The artesian water enters the respective formations in their area of outcrop which is in part covered by Tertiary and Quaternary deposits.)

*Area not underlain by water-bearing formations*

E. M. Douglas, Geographer in charge.
Triangulation by E. M. Douglas.
Topography by A. F. Dunnington.
Surveyed in 1898–99.

TRUE NORTH
MAGNETIC NORTH
15½°
APPROXIMATE MEAN DECLINATION, 1920.

Scale $\frac{1}{125000}$
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
*Datum is mean sea level.*
Edition of Nov. 1922.

DIAGRAM OF TOWNSHIP.

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

Hydrology by N. H. Darton.
Surveyed in 1900–1915.