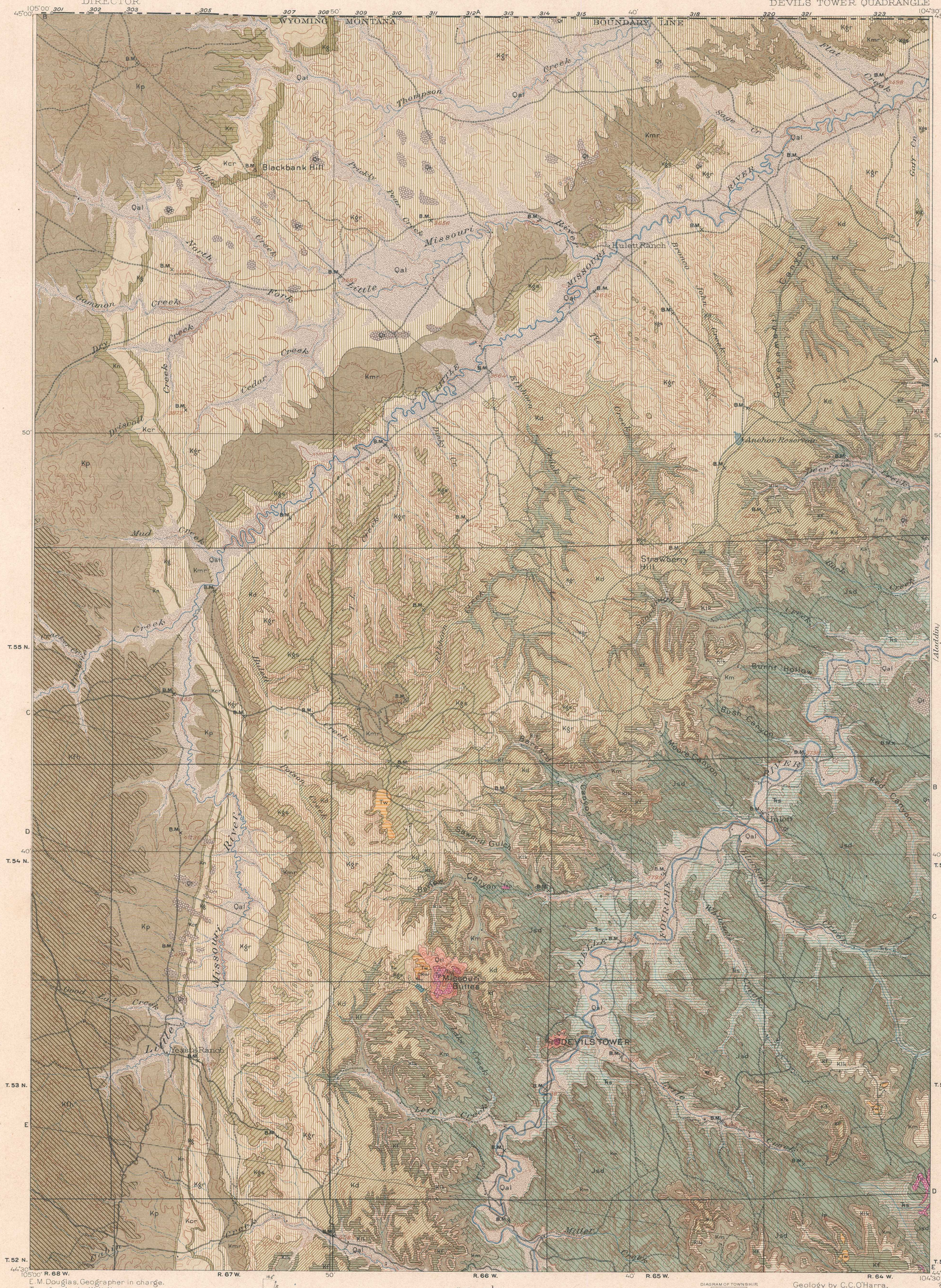
U. S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT
DIRECTOR

AREAL GEOLOGY

WYOMING
(CROOK COUNTY)
DEVILS TOWER QUADRANGLE



E. M. Douglas, Geographer in charge.
Topography by W. H. Herron.
Triangulation by W. H. Herron.
Surveyed in 1902-1903.

TRUE NORTH
MAGNETIC NORTH
16½°
APPROXIMATE MEAN DECLINATION 1903.

Scale $\frac{1}{125000}$

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 50 feet.
Datum is mean sea level.
Edition of Mar. 1907.

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

Geology by C. C. O'Harra,
under the direction of N. H. Darton.
Surveyed in 1904.

LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles)

QUATERNARY

Recent

Qal — Alluvium (sand and loam, only the larger deposits represented)

Qtl — Talus (of igneous rock)

Pleistocene

Qt — Older terrace deposits (gravel and loam)

TERTIARY

Tw — Sand, gravel, and conglomerate (possibly of White River age)

UNCONFORMITY

CRETACEOUS

Upper Cretaceous

Kfh — Fox Hills sandstone (buff massive sandstone, mostly soft)

Kp — Pierre shale (dark-gray shale and clay, with concretions)

Kn — Niobrara formation (limy shale and impure chalk)

Benton group

Kcr — Carlile formation (gray shale and thin sandstone)

Kg — Greenhorn formation (black shale with limestone concretions)

Km, Kgr, Kgs — Graneros shale (dark fissile shale with sandstone bed, Kgs, and Mowry member, Km; composed of hard gray shale)

Lower Cretaceous

Kd — Dakota sandstone (brownish sandstone, mostly massive)

Kf — Fuson formation (shale and sandstone)

Klk — Lakota sandstone (massive buff sandstone)

CRETACEOUS OR JURASSIC

Km — Morrison shale (massive sandy shale, gray, greenish, and maroon)

UNCONFORMITY ?

JURASSIC

Jsd — Sundance formation (buff sandstone and red and greenish-gray shale)

UNCONFORMITY

TRIASSIC ?

Ꞧs — Spearfish formation (red sandy shale with beds of gypsum; "Red Beds")

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and rhombs)

TERTIARY

Ip, Tsp, Tpp — Phonolite (laccolithic intrusions; includes small bodies of phonolite porphyry, Tpp, and syenite porphyry, Tsp)

Tag, Tmz — Agglomerate (fragments of granite, sedimentary rocks, and porphyries in a matrix of igneous rock; a mass of monzonite, Tmz, probably an inclusion)

Ip — Lamprophyre dikes

Sections