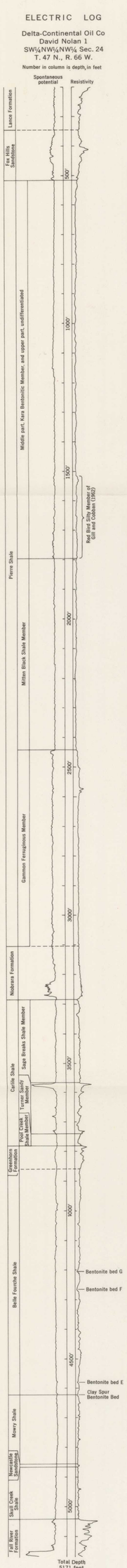
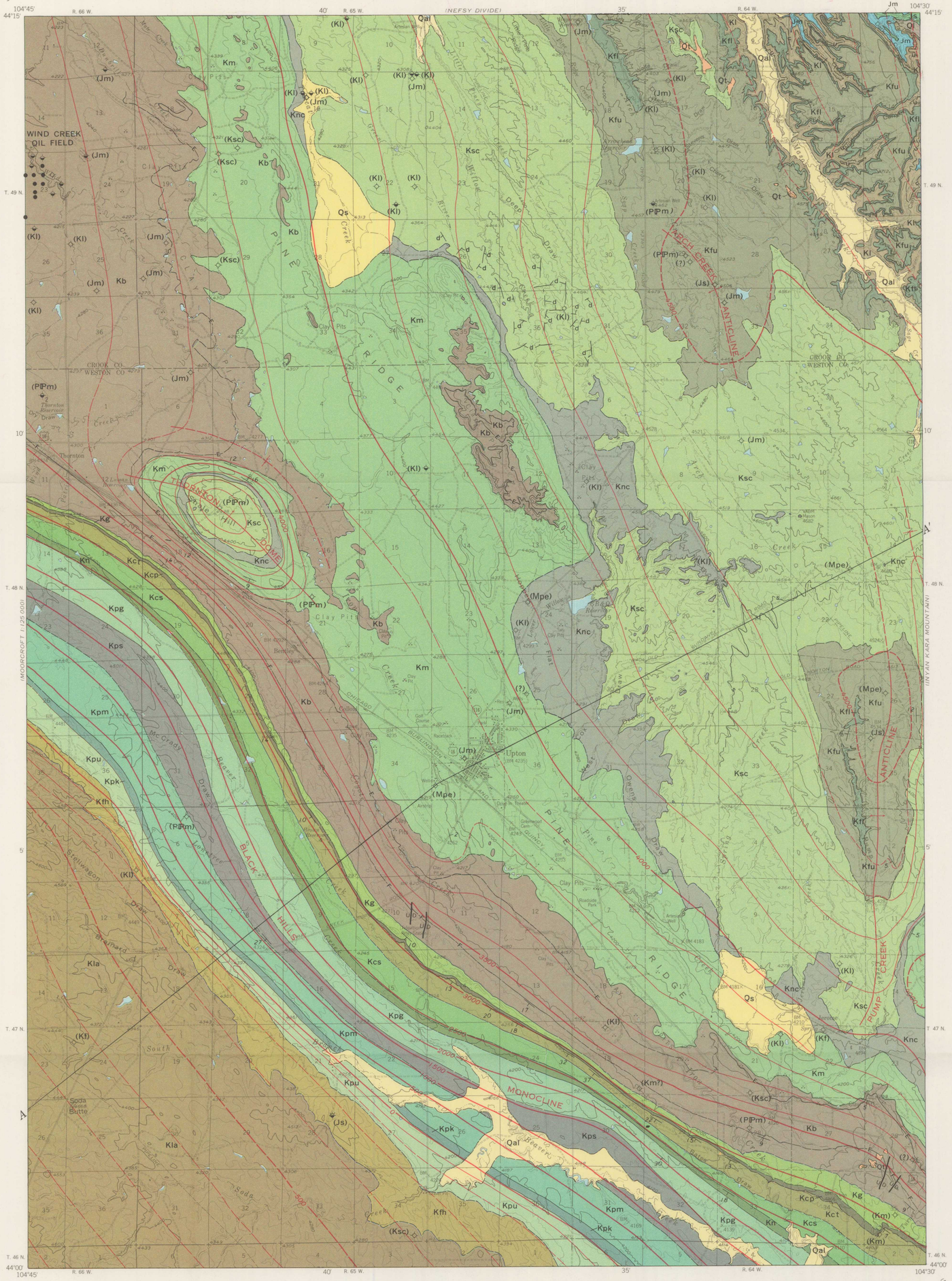
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BULLETIN 1181-J
PLATE 1





Base by U.S. Geological Survey, 1957

Geology by C. L. Pillmore and W. J. Mapel, 1956–58

EXPLANATION

- Qal — Alluvium
- Qs — Slope wash
- Ql — Landslide material
- Qt — Terrace deposits

QUATERNARY

- Kla — Lance Formation
- Kfh — Fox Hills Sandstone
- Kpu, Kpk, Kpm, Kps, Kpg — Pierre Shale
  - Kpu, *upper part*
  - Kpk, *Kara Bentonitic Member*
  - Kpm, *middle part*
  - Kps, *Mitten Black Shale Member*
  - Kpg, *Gammon Ferruginous Member*
- Kn — Niobrara Formation
- Kcs, Kct, Kcp, Kc — Carlile Shale
  - Kcs, *Sage Breaks Shale Member*
  - Kct, *Turner Sandy Member*
  - Kcp, *Pool Creek Shale Member*
  - Kc, *Carlile Shale, shown only in section*
- Kg — Greenhorn Formation
- Kb — Belle Fourche Shale
  - *Bentonite beds E and F not shown in section*
- Km — Mowry Shale
- Knc — Newcastle Sandstone
- Ksc — Skull Creek Shale
  - d, *sandstone dike*
  - s, *local siltstone bed*
- Kns — Newcastle Sandstone and Skull Creek Shale, *Shown only in section*
- Kfu, Kfl, Kf — Fall River Formation
  - Kfu, *upper part*
  - Kfl, *lower part*
  - Kf, *Fall River Formation, shown only in section*

Upper Cretaceous / *Lower Cretaceous* — CRETACEOUS

UNCONFORMITY

- Kl — Lakota Formation, u, *local unconformity*

Upper Jurassic

- Jm — Morrison Formation
- Js — Sundance Formation

JURASSIC

UNCONFORMITY

SHOWN ONLY IN SECTION

- TrPs — Spearfish Formation
- Pmo — Minnekahta Limestone and Opeche Shale

UNCONFORMITY

- PIPm — Minnelusa Formation

UNCONFORMITY

- Mpe — Pahasapa and Englewood Limestones

UNCONFORMITY

- O€ — Sedimentary rocks

UNCONFORMITY

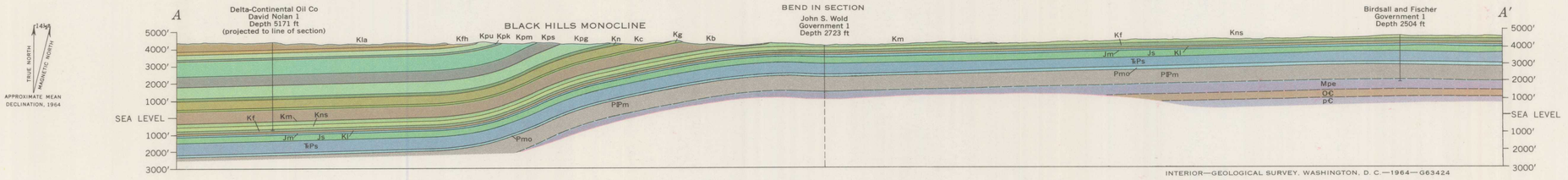
- p€ — Metamorphic and igneous rocks

Lower Mississippian

TRIASSIC; PERMIAN; PENNSYLVANIAN; MISSISSIPPIAN; CARBONIFEROUS; CAMBRIAN AND ORDOVICIAN; PRECAMBRIAN

- Contact — *Dashed where approximately located*
- Fault — U, *upthrown side*; D, *downthrown side*
- Strike and dip of beds
- 2000 — Structure contours
  Drawn on top of the Fall River Formation. Long dashes where control is less accurate short dashes where the contour datum is above the land surface. Interval is 100 feet; 500 feet from 0 to 3500 feet; datum is mean sea level
- Axis of anticline — *Dashed where approximately located*
- Axis of syncline, approximately located
- Record of oil production
- Show of oil
- Show of oil and gas
- Dry hole

Wells drilled for oil or gas (to August 1962)
(Kl), *oldest formation reached in drilling. Wells located from descriptions on file, U.S. Geological Survey Conservation Division*



INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1964—G63424

GEOLOGIC AND STRUCTURE MAP, ELECTRIC LOG, AND SECTION, UPTON QUADRANGLE, CROOK AND WESTON COUNTIES, WYOMING

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL