EXPLANATION

QUATERNARY — Pleistocene and Recent

Qal — Alluvium
Unconsolidated silt, sand, and gravel.

Qc — Colluvium
Deposits of unconsolidated clay, silt, sand, and gravel resulting from the transporting action of gravity (not including landslide material).

Qts — Stream terrace deposits
Unconsolidated silt, sand, and gravel. Qt 1 are lowest and youngest, Qt 5 are highest and oldest. Qts are undifferentiated terrace deposits. ↓ or ↓ following subscript indicates surface above or below normal terrace level.

Qtsf — Stream terrace deposits and alluvium, undifferentiated

Ql — Landslide material

Qs — Sediment deposits
Unconsolidated silt, sand, and gravel of local origin deposited on pediment surfaces.

TERTIARY — Oligocene (?) and Miocene

Tsc — Sedimentary rocks, undifferentiated
Conglomerate, coarse-grained arkosic sandstone, and brown sandy clay.

UNCONFORMITY

Eocene

Tw — Wasatch formation
Tw is light-gray sandstone, dark-gray shale, and coal; Tbm is Moncrief member, gray sandstone and brown shale of the Bangtail member, and brown sandstone of the Cloverly member; Tsk is Kingsbury conglomerate member, which contains fragments of conglomerate composed of pebbles and cobbles of Paleozoic rocks.

UNCONFORMITY

Paleocene

Ttu — Fort Union formation
Light-colored sandstone and drab-colored shale. Ttu1 contains beds of sandstone composed of pebbles of Paleozoic rocks and contains a coal unconformably.

CRETACEOUS — Upper Cretaceous

Kl — Lance formation
Light-gray sandstone and dark-gray shale.

Kb — Bearpaw shale
Dark-greenish-gray shale, in part sandy.

Kp — Parkman sandstone
Yellowish-gray sandstone with some interbedded gray sandy shale in upper part.

Kc — Cody shale
Dark-gray shale and sandy shale, some light-gray sandstone, and numerous thin beds of bentonite.

Kf — Frontier formation
Interlaminated dark-gray shale and light-gray sandstone; conglomeratic short-period sandstone at top.

Km — Mowry shale
Upper part is gray siliceous shale and siltstone weathering light silvery gray; lower part is soft grayish-black shale weathering black; numerous thin beds of bentonite. Live shrew bone of the siliceous shale.

Ko — Newcastle sandstone
Light-gray fine-grained sandstone.

Ksc — Skull Creek shale
Grayish-black shale with some thin beds of brown siltstone in lower part.

Kcl — Cloverly formation
Interbedded grayish-black shale and brown siltstone; light-gray medium- to coarse-grained crossbedded sandstone at base.

JURASSIC — Upper Jurassic

Jm — Morrison formation
Variegated shale and siltstone and light-gray fine-grained sandstone.

Js — Sundance formation
Green calcareous shale and light-gray calcareous glauconitic sandstone.

UNCONFORMITY

Middle Jurassic

Jgs — Gypsum Spring formation
Upper part is interbedded light-gray limestone and red shale; lower part is red shale.

UNCONFORMITY (?)

TRIASSIC

Ts — Chugwater formation
Red sandstone, siltstone, and shale; ledge-forming bed of light-gray limestone near top.

PERMIAN

Pp — Goose Egg formation
Gypsum and red siltstone sequence.
Red siltstone and shale with thick beds of gypsum in upper part.

UNCONFORMITY (?)

PENNSYLVANIAN

P — Tensleep sandstone
Light-gray to white cross-bedded sandstone.

PMa — Amsden formation
Red and purple shale with thick beds of light-gray to white cherty dolomite.

UNCONFORMITY

MISSISSIPPIAN

Mm — Madison limestone
Light-gray limestone, dolomitic limestone, and dolomite.

UNCONFORMITY (?)

ORDOVICIAN

Ob — Bighorn dolomite
Light-gray to light yellowish-gray dolomite; white fine-grained sandstone at base.

UNCONFORMITY (?)

CAMBRIAN — Upper Cambrian

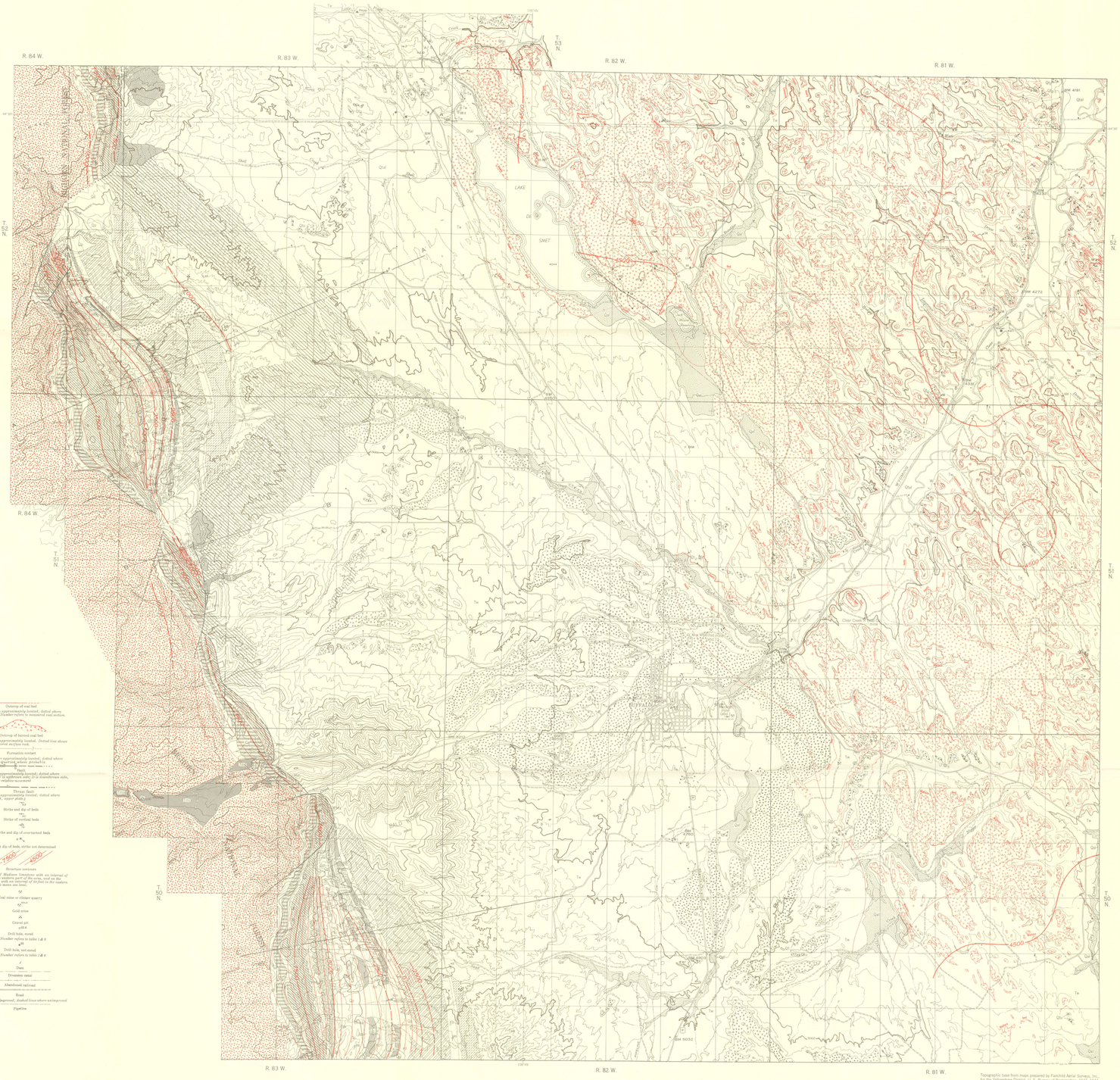
Gc — Gros Ventre and Gallatin formations, undifferentiated
Upper part is thin-bedded light-gray limestone and flat-pebble limestone conglomerate; middle part is green, brown, and red shale and siltstone; lower part is shale, flat-pebble limestone conglomerate, and brown sandstone; lower part is brown glauconitic sandstone with some interbedded green shale.

Middle Cambrian

Cf — Flathead sandstone
Light yellowish-gray sandstone with some interbedded green shale and siltstone; below few feet are red and conglomeratic.

UNCONFORMITY

PRE-CAMBRIAN

Ꝑ — Igneous and metamorphic rocks
Red and gray granite with some gneiss.

Structure symbols: Outcrop of coal bed; Dashed where approximately located; dotted where concealed. Number refers to measured coal section. Outcrop of burned coal bed; Dashed where approximately located. Dotted line shows limit of clinkered surface rock. Formation contact; Dashed where approximately located; dotted where concealed, queried where probable. Fault; Dashed where approximately located; dotted where concealed. U'd upthrown side; D'd downthrown side, arrows show relative movement. Thrust fault; Dashed where approximately located; dotted where concealed. Ꝑ, upper plate; Strike and dip of beds; Strike of vertical beds; Strike and dip of overturned beds; Apparent dip of beds, strike not determined; 7500 Structure contours; Drawn on top of Madison limestone with an interval of 500 feet. Datum is mean sea level. 4600 Structure contours; Drawn on top of Madison limestone with an interval of 50 feet in the eastern part. Datum is mean sea level. Coal mine or clinker quarry; Gold mine; Gravel pit; Drill hole, cored; Number refers to table 1 & 2; Drill hole, not cored; Number refers to table 1 & 2; Dam; Diversion canal; Abandoned railroad; Road; Solid line where improved; dashed lines where unimproved; Pipeline