UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GEOLOGIC MAP OF THE NORTHGATE DISTRICT, COLORADO AND WYOMING

Outline of area covered by plate 49

R. 80 W. — R. 79 W.

T. 12 N. — T. 11 N.

WYOMING
COLORADO

EXPLANATION

SEDIMENTARY ROCKS

Qal	Alluvium	QUATERNARY	
Qt	Talus, landslide, and alluvial-fan deposits		
Qds	Dune sand, mostly stable		
Qtg	Terrace gravels		
Tnp	North Park formation	Pliocene(?)	TERTIARY
	UNCONFORMITY		
Twr	White River formation	Oligocene	
	UNCONFORMITY		
Kp	Pierre shale	Upper Cretaceous	CRETACEOUS
Kn	Niobrara formation		
Kb	Benton shale	Lower and Upper Cretaceous	
Kd	Dakota sandstone	Lower Cretaceous	
	UNCONFORMITY		
Jm	Morrison formation	Upper Jurassic	JURASSIC
Js	Sundance formation		
	UNCONFORMITY		
IPc	Chugwater formation		PERMIAN AND TRIASSIC
Pf	Forelle limestone, Pf, locally underlain by Satanka(?) shale, Ps		PERMIAN
	UNCONFORMITY		

METAMORPHIC AND INTRUSIVE ROCKS

pCm	Intrusive quartz monzonite	Younger pre-Cambrian	PRE-CAMBRIAN
pCmy	Dacite porphyry dikes		
pCu	Undifferentiated metamorphic rocks		
pCp	Pegmatite	Older pre-Cambrian	
pCbg	Biotite-garnet gneiss		
pCmy	Mylonite gneiss		
pCqm	Quartz monzonite gneiss *Includes local bodies of rheomorphic quartz monzonite gneiss*		
pCh	Hornblende gneiss *Includes local bodies of hornblende-biotite gneiss*		

Contact — *Dashed where approximately located*

Fault — *Showing dip; dashed where approximately located; dotted where concealed; U, upthrown side, D, downthrown side*

Vertical fault

Strike and dip of beds

Strike of vertical beds

Strike and dip of foliation

Strike and dip of vertical foliation

Strike and dip of foliation and plunge of lineation

Bearing and plunge of lineation

Fluorspar mine

Unmapped sedimentary rocks

Map compiled from aerial photographs. Land grid from U. S. Bureau of Land Management township plats, surveyed in 1938–39

Geology by T. A. Steven, R. B. Johnson, A. L. Bush, and G. W. Weir, 1946–48

Scale 1:24,000

2000 0 10,000 Feet

TRUE NORTH — 15° — MAGNETIC NORTH

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. M-R-4141