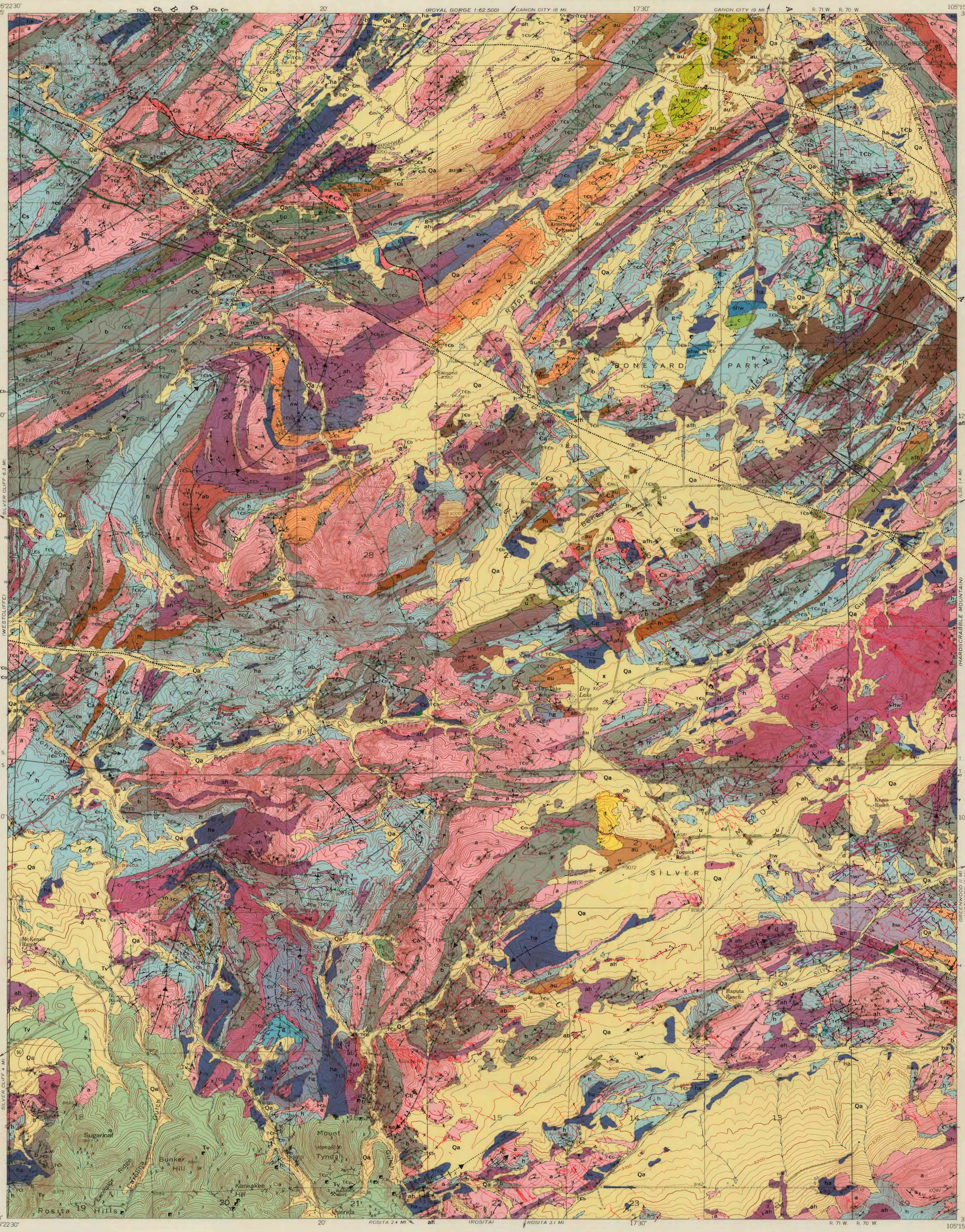
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
U. S. ATOMIC ENERGY COMMISSION
AND THE
COLORADO MINING INDUSTRIAL DEVELOPMENT BOARD

GEOLOGIC QUADRANGLE MAP
MOUNT TYNDALL QUADRANGLE, COLORADO
GQ-596 (SHEET 1 OF 2)



Base by U.S. Geological Survey, 1955

APPROXIMATE MEAN DECLINATION, 1968

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

COLORADO
QUADRANGLE LOCATION

Geology by Q. D. Singewald and M. R. Brock, 1952–58; north-central portion revised from Christman and others (1959, plate 15)

EXPLANATION

QUATERNARY

Qa — Alluvium and colluvium

TERTIARY

Tl — Limburgite

Tv — Volcanic rocks undivided
Ash-flow tuff, intrusives, agglomerate, and breccia. Includes rhyolite, andesite, and trachyte

Tr — Intrusive rhyolite porphyry

CAMBRIAN(?) AND (OR) TERTIARY

TCl — Lamprophyre

TCp — Porphyritic olivine and augite basalts and peridotite
In part analcite bearing

TCb — Diabase and nonporphyritic basalt
In part analcite bearing

CAMBRIAN(?)

Ca — Hydrothermally altered rock

Cm — Mafic syenite

Cs — Quartz syenite and syenite

Cb — Explosion breccia
With and without igneous matrix

Cg — Gabbro

PRECAMBRIAN

Intrusive rocks; sequence, in part, uncertain

r — Biotite granite

m — Migmatite
Hybrid rock comprised of biotite granite and gneisses

d — Porphyritic granite

g — Gabbroic gneiss and metamorphosed ultramafic rocks

f — Charnockitic gneiss

a — Alaskitic granite gneiss

p — Quartz monzonite gneiss

t — Pegmatite

Interlayered rocks; position does not reflect age

h — Hornblende gneiss

w — Plagioclase-quartz gneiss

b — Biotite gneiss

c — Calc-silicate rock

u — Gneisses undivided

Metaquartzite

Garnetiferous gneisses

Sillimanitic gneisses

MIXED GNEISSES

ab — Alaskitic granite gneiss and biotite gneiss

af — Alaskitic granite gneiss and charnockitic gneiss

afh — Alaskitic granite gneiss, charnockitic gneiss, and hornblende gneiss

afu — Alaskitic granite gneiss, charnockitic gneiss, and undivided gneisses

aht — Alaskitic granite gneiss, hornblende gneiss, and pegmatite

ahw — Alaskitic granite gneiss, hornblende gneiss, and plagioclase-quartz gneiss

aw — Alaskitic granite gneiss and plagioclase-quartz gneiss

ah — Alaskitic granite gneiss and lesser amounts of hornblende gneiss

au — Alaskitic granite gneiss and lesser amounts of undivided sedimentary gneisses

bp — Biotite gneiss and quartz monzonite gneiss

fh — Charnockitic gneiss and hornblende gneiss

hw — Hornblende gneiss and plagioclase-quartz gneiss

ha — Hornblende gneiss and lesser amounts of alaskitic granite gneiss

hg — Hornblende gneiss and lesser amounts of gabbroic gneiss and metamorphosed ultramafic rocks

Contact
Dashed where approximately located; short dashed where inferred

Fault
Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side

Fault (shear or mylonite) zone
Red where mineralized

Anticline
Showing crestline and direction of plunge. Dashed where approximately located, dotted where concealed

Syncline
Showing trace of troughline and direction of plunge. Dashed where approximately located, dotted where concealed

Overturned anticline
Showing direction of dip of limbs and plunge. Dashed where approximately located, dotted where concealed

Overturned syncline
Showing direction of dip of limbs and plunge. Dashed where approximately located, dotted where concealed

Plunge of minor anticline

Plunge of minor syncline

Plunge of minor fold

Strike and dip of foliation

Strike and generalized dip of foliation

Strike of vertical foliation

Horizontal foliation

Strike and dip of foliation and direction of plunge of lineation

Bearing and plunge of lineation

Horizontal lineation

Vein, showing dip
Dashed where approximately located short dashed where inferred or where traced in alluvium by radioactivity; dotted where concealed

Vertical vein

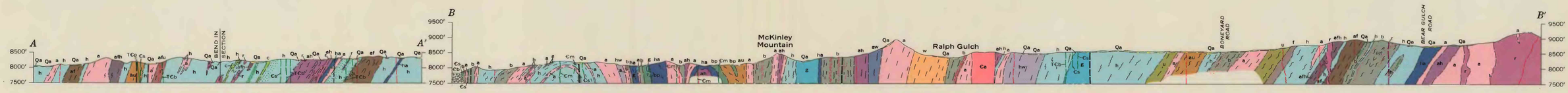
Shaft

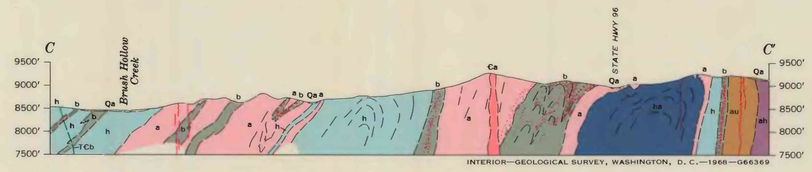
Portal of adit

Open cut

Prospect pit

Mine





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GEOLOGIC MAP OF THE MOUNT TYNDALL QUADRANGLE, CUSTER COUNTY, COLORADO

By
M. R. Brock and Q. D. Singewald

1968

For sale by U.S. Geological Survey, price $1.00 per set