UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CIRCULAR 290 PLATE I

GEOLOGIC MAP OF THE HAPUTA RANCH, CUSTER COUNTY, COLORADO

EXPLANATION

TERTIARY QUATERNARY

- Qal — Alluvium
- Tb — Basic rocks — *Occurs as dikes*
- Sy — Syenite (?)
- pg — Pegmatite and white granite
- ga, gb, gd — Microcline granite — *Alaskitic granite (ga), locally coarse grained with 10 percent or more mafics (stippled); granite (gb) characterized by biotite, moderate to low quartz and microcline content; granite (gd) characterized by its massive appearance, red feldspar, hornblende, and low quartz content.*

PRE-CAMBRIAN

- mig — Migmatite — *Stippled where coarse-grained*
- mg — Metagabbro
- gbgn — Biotite gronite gneiss — *Includes lenses of amphibolite*
- am — Amphibolite

- Contact — *Dashed where approximately located*
- Indefinite contact
- Concealed contact
- 87 — Fault and shear zone, showing dip — *Dashed where approximately located*
- Concealed fault
- 65 — Strike and dip of foliation
- Strike of vertical foliation
- 80 — Strike and dip of joints
- 90 — Strike of vertical joints
- Concentration of vein material — *Vein material continuous in all faults and shears*
- Vertical shaft
- Inclined shaft
- Prospect pit and dump
- Trench and dump
- Diamond drill hole — *Showing bearing and horizontal projection*
- Fence

RANCH ROAD
TO WESTCLIFFE
TO PUEBLO
SHEAR ZONE NO. 1
SHEAR ZONE NO. 2
SHEAR ZONE NO. 3
SHEAR ZONE NO. 4
SHEAR ZONE NO. 5
Ha-1
Ha-2
Ha-3
Ha-4
Ha-5
Ha-6
Ha-7
Ha-8
Ha-9
Ha-10
Ha-11

15° TRUE NORTH MAGNETIC NORTH

100 0 200 Feet
Contour interval 10 feet
Datum is assumed

Topography by L.F. Dellwig and C.C. Bowles, August 1950

Geology by R.A. Christman and A.M. Heymon, June 1952
Modified after L.F. Dellwig, August 1950