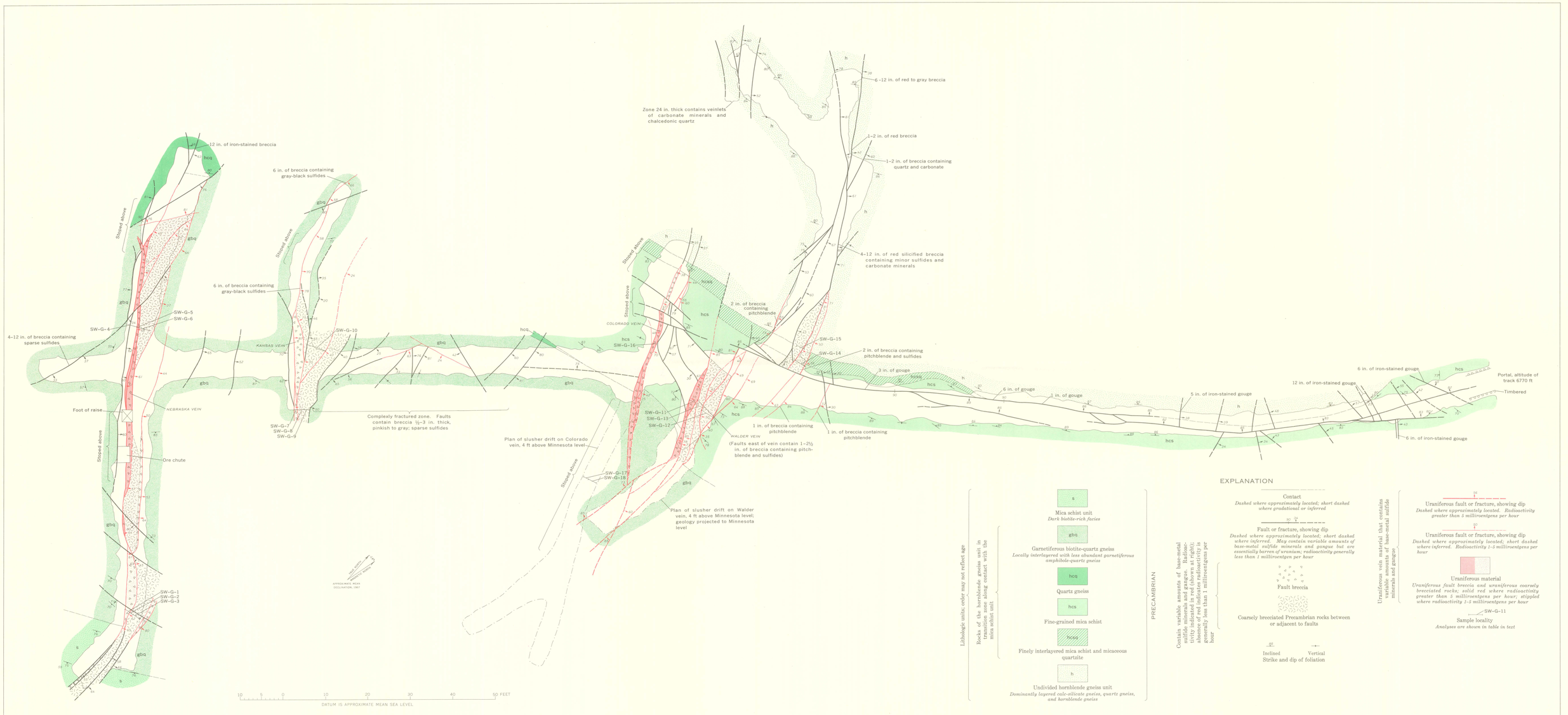
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED PARTLY ON BEHALF OF THE
U.S. ATOMIC ENERGY COMMISSION

PROFESSIONAL PAPER 520
PLATE 4



EXPLANATION

Lithologic units; order may not reflect age

Rocks of the hornblende gneiss unit in transition zone along contact with the mica schist unit

s — Mica schist unit
Dark biotite-rich facies

gbq — Garnetiferous biotite-quartz gneiss
Locally interlayered with less abundant garnetiferous amphibole-quartz gneiss

hcq — Quartz gneiss

hcs — Fine-grained mica schist

hcsq — Finely interlayered mica schist and micaceous quartzite

h — Undivided hornblende gneiss unit
Dominantly layered calc-silicate gneiss, quartz gneiss, and hornblende gneiss

PRECAMBRIAN

Contain variable amounts of base-metal sulfide minerals and gangue. Radioactivity is generally less than 1 millioroentgens per hour

Contact
Dashed where approximately located; short dashed where gradational or inferred

Fault or fracture, showing dip
Dashed where approximately located; short dashed where inferred. May contain variable amounts of base-metal sulfide minerals and gangue but are essentially barren of uranium; radioactivity generally less than 1 millioroentgen per hour

Fault breccia

Coarsely brecciated Precambrian rocks between or adjacent to faults

Inclined — Vertical
Strike and dip of foliation

Uraniferous vein material that contains variable amounts of base-metal sulfide minerals and gangue

Uraniferous fault or fracture, showing dip
Dashed where approximately located. Radioactivity greater than 5 millioroentgens per hour

Uraniferous fault or fracture, showing dip
Dashed where approximately located; short dashed where inferred. Radioactivity 1–5 millioroentgens per hour

Uraniferous material
Uraniferous fault breccia and uraniferous coarsely brecciated rocks; solid red where radioactivity greater than 5 millioroentgens per hour; stippled where radioactivity 1–5 millioroentgens per hour

SW-G-11
Sample locality
Analyses are shown in table in text

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1967—G65420

Base from transit and tape survey by D. M. Sheridan, W. E. Willging, and C. H. Maxwell, 1955–56

Geology by D. M. Sheridan and C. H. Maxwell, 1956

GEOLOGIC MAP OF THE MINNESOTA LEVEL, SCHWARTZWALDER MINE, RALSTON BUTTES DISTRICT, JEFFERSON COUNTY, COLORADO