



OWNER: Yancey Bailey  
DRILLER: Farmville Well Drilling Co., Inc.  
COUNTY: Buckingham (Curdsville)

VDMR #1450  
WWCR #121  
TOTAL DEPTH: 332'

GEOLOGIC LOG

- 0-49 No sample.
- 49-62 Gneiss — white to medium-greenish-light-gray; grain size: 0.3 to 5.0 mm, banded, slightly foliated; quartz, oligoclase-andesine; epidote, alkali-feldspar, biotite, pyrite; minor sphene, calcite; trace pyrrhotite, minor fractures with chlorite coating.
- 62-82 As above — less pyrite more pyrrhotite.
- 82-102 Pegmatitic Gneiss — almost white to medium-light-gray; grain size: 1 mm to 18 mm; albite, quartz, microcline, minor biotite and muscovite, pyrite, trace garnet; trace of hornblende-biotite gneiss: medium-gray, average grain size approximately 1 mm; feldspar, quartz, hornblende, biotite, epidote, pyrite.
- 102-122 Hornblende-Biotite Gneiss — medium-gray, grain size: 0.2 to 1.2 mm, slightly foliated; oligoclase, quartz, biotite, hornblende, epidote, minor pyrrhotite; minor chlorite, especially along fractures.
- 122-142 As above — banded, i. e. dark minerals concentrated in layers.
- 142-162 Hornblende-Biotite Gneiss, Pegmatitic Vein (or Lens) and Micro Breccia — hornblende-biotite gneiss: as above; pegmatitic vein: greenish-white, extremely coarse grained, microcline, quartz, albite, minor muscovite, tiny garnet crystals and pyrite; micro-breccia: medium-greenish-gray, very-fine-grained to 1 mm; slightly foliated; quartz, feldspar, sericite, calcite, epidote, chlorite, minor pyrite and minor vein calcite.
- 162-182 Pegmatitic Vein or Lens — nearly white, extremely coarse grained; microcline, quartz, albite, muscovite; minor tiny garnet crystals, pyrite and calcite.
- 182-202 Hornblende Gneiss — medium-light- to medium-dark-gray, banded, grain size: 1.0-1.5 mm, slightly foliated; plagioclase, hornblende, quartz, epidote, biotite, muscovite.
- 202-222 As above — with pale-green bands: epidote, actinolite; minor quartz, feldspar, sphene and pyrite.
- 222-242 As above — less epidote and actinolite; minor vein quartz and albite.

OWNER: Yancey Bailey

#1450

- 242-257 Biotite-Hornblende Gneiss — medium-gray, slightly brownish; grain size: 0.2 - 2.0 mm; andesine, biotite, hornblende, quartz, epidote, garnet (crystals 1-3 mm) minor sphene and pyrite; minor veins or vugs of bluish-white bytownite associated with vein quartz, large crystals of hornblende sphene, garnet and calcite; these blue-white areas have a gradational contact with the biotite gneiss.
- 257-272 Hornblende-Epidote Gneiss — light-green to medium-dark-gray, banded; grain size: 0.2 to 5 mm; hornblende, epidote, quartz, actinolite, oligoclase, biotite, chlorite, trace of apatite and sphene; minor pyrite and vein quartz and calcite.
- 272-292 Hornblende Gneiss — medium-gray, grain size: 0.2-2.0 mm; hornblende, calcic andesine, quartz, epidote; minor chlorite, biotite and apatite; trace of zircon; minor layers of epidote-actinolite gneiss; minor vein quartz and calcite.
- 292-312 Hornblende-Mica Gneiss — medium-light-gray, slightly foliated, grain size 0.2 to 2.0 mm; hornblende, quartz, feldspar, biotite, muscovite, epidote; minor garnet; minor pegmatitic vein or lens of albite, microcline, quartz and muscovite.
- 312-332 As above — with minor narrow green bands of chloritized microbreccia; parallel to foliation, more microcline in pegmatitic material.

#### GEOLOGIC SUMMARY

These samples are of a Hornblende Gneiss that has been fractured (142-162 and 312-332 intervals) and intruded by pegmatitic solutions (82-102, 142-182, and 292 and 332 intervals). The occurrence of the feldspar bytownite (242-257 interval) may indicate the presence of limestone in the original sediments.

Virginia Division of Mineral Resources  
Hollis N. Walker, Geologist  
January 13, 1966