



OWNER: Virginia Department of Highways  
(State Resident Shop, Lot #42)  
DRILLER: C. R. Moore  
COUNTY: Louisa (Louisa)

VDMR #1441  
WWCR #69  
TOTAL DEPTH: 260'

GEOLOGIC LOG

- 0-54 No samples.
- 54-70 Quartz Schist — very pale-brown, fine-grained with minor coarse-grained; fissile, good lineation; quartz, muscovite, minor feldspar and biotite.
- 70-80 As above — less brown color, slightly coarser grained.
- 80-90 Quartz Gneiss — very light to dark-gray, average grain-size 0.25 mm; finely banded; quartz, muscovite, biotite, minor feldspar; augen and veins of quartz.
- 90-100 Quartz Biotite Schist — medium to dark-gray, lusterous, fine-grained, well-foliated; quartz, biotite, sericite; minor pyrite and feldspar, veins and laminae of coarse quartz; trace magnetite.
- 100-110 Quartz Gneiss — medium-gray, fine-grained, good lineation; quartz, sericite, biotite; minor pyrrhotite; trace magnetite.
- 110-120 As above — less pyrrhotite, trace pyrite.
- 120-130 As above — more massive.
- 130-140 Quartz Gneiss — medium-gray, fine-grained; massive; quartz, sericite, biotite; minor pyrite; minor dark-gray, schistose, biotite-rich laminae.
- 140-150 Quartz-Sericite Schist — very pale-green-gray, fine-grained; good foliation and lineation; minor biotite and pyrite.
- 150-160 As above — slightly more biotite.
- 160-170 Quartz Schist — medium light-gray, fine to coarse-grain; quartz, sericite, biotite, minor garnet, pyrite and pyrrhotite.
- 170-180 As above — very minor dark-amphibole schist: good lineation and foliation; amphibole, calcite, biotite, quartz, and chlorite.
- 180-190 Amphibole Schist — medium dark-greenish-gray, average grain size 0.2 mm x 1.0 mm; good lineation and foliation; amphibole, calcite, biotite, quartz, and chlorite.

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- 190-200 Amphibole Schist and Quartz Schist — amphibole schist: as above with more quartz and biotite and longer needles of amphibole; quartz schist: very light-gray, fine grained; quartz, sericite, minor biotite and pyrrhotite.
- 200-210 As above — more biotite, less amphibole.
- 210-220 Quartz Gneiss — light-gray, fine-grained, banded; minor small rounded augen of quartz; quartz, sericite, biotite; minor pyrite and pyrrhotite.
- 220-230 As above — with minor medium grayish-green, fine-grained amphibole schist, with amphibole, quartz, biotite, and muscovite.
- 230-240 As above — more amphibole schist, trace vein calcite.
- 240-250 Quartz Schist — medium light-gray, fine-grained, poorly foliated; quartz, sericite, minor biotite and pyrite; biotite-rich partings; minor vein quartz.
- 250-260 Amphibole Schist — medium dark-green-gray, fine-grained; foliated, poor lineation; amphibole, quartz; minor biotite and chlorite; minor quartz schist as above.

#### GEOLOGIC SUMMARY

These samples are mostly metamorphosed sedimentary rocks of uncertain age. The amphibole-rich phases may be metamorphosed tuffs, lavas, or intrusives, or may have been hydrothermally formed.

Virginia Division of Mineral Resources  
Hollis N. Walker, Geologist  
December 21, 1965