

OWNER: Easthampton Rubber Thread Co. Well # 10
DRILLER: Sydnor Pump & Well Co., Inc.
COUNTY: Patrick (Stuart)

VDMR WELL # 1387
WWCR WELL # 74
TOTAL DEPTH : 400

GEOLOGIC LOG

Lynchburg Formation (0-400')

- 0-28 Weathered Gneiss - light brown, white and medium gray; average grain size 0.25 to 2 mm; alkali-feldspar, quartz, biotite, hornblende, epidote, muscovite, minor apatite, calcite, oligoclase, zircon and sphene, iron-oxide stain.
- 28-30 No Sample (top of bedrock in this interval).
- 30-50 Calcareous Gneiss - white, very pale-gray to medium gray; average grain size 0.25 to 1.5 mm, banded; quartz, microcline, augite, hornblende, sphene biotite, calcite, epidote minor apatite, garnet and pyrrhotite; slight iron-oxide stain and kaolinization along fractures.
- 50-70 As above - less fracturing, more garnet, minor vein quartz.
- 70-80 As above - no iron-oxide stain.
- 90-110 As above - a small portion of sample is rich in biotite.
- 110-130 As above - minor fractures with iron-oxide stain.
- 130-150 As above - less biotite and iron-oxide.
- 150-170 Gneiss - white to medium gray, average grain size 0.25-1.5 mm; microcline, quartz, hornblende, biotite, oligoclase, epidote, apatite, minor pyroxene, sphene and zircon; trace calcite and pyrrhotite; minor vein epidote.
- 170-190 As above
- 190-210 As above - more epidote.
- 210-230 Gneiss - light to medium gray; average grain size 0.5 to 1 mm; quartz, microcline, biotite, oligoclase, muscovite, trace calcite; minor light brownish-gray, fine grained, quartz-sericite schist; trace vein epidosite.
- 230-250 As above - less epidosite.
- 250-270 As above - no quartz-sericite schist, more epidote.
- 270-285 As above - less epidote.
- Zone of Leucocratic Veins (estimated contact 290-400)

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#1387

- 285-300 Feldspathic Vein and Gneiss - very light-gray, extremely coarse-grained; microcline, albite, dusty quartz, minor sericite and biotite, trace calcite and epidote; one-third of sample is gneiss as described above; slight iron stain and kaolinization.
- 300-320 As above - no gneiss
- 320-340 Gneiss - light to medium gray, average grain size 0.3 to 1 mm; alkali feldspar, quartz, biotite, plagioclase, sericite, trace calcite; minor amount of vein material as above; slight iron-oxide stain.
- 340-360 As above - only a trace of vein material or iron stain.
- 360-380 As above - slightly more iron stain.
- 380-400 As above - much more feldspar, probably vein material (cuttings are too fine for structural observations), minor pyroxene.

GEOLOGIC SUMMARY

This well is in the Lynchburg Formation, the upper part of which is slightly calcareous, and a zone of Feldspathic veins occurs from 290-400 feet. These veins are apparently water bearing in the upper portion of this zone.

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
October 18, 1965