

OWNER: Rainbow Forest Development
(Rainbow Forest Well #4)
DRILLER: Falwell Well Corporation (J. L. Eagle
COUNTY: Botetourt (Troutville)

VDMR #1242
WWCR #80
TOTAL DEPTH: 260'

GEOLOGIC LOG

Blue Ridge Fault Breccia (0-200')

- 0-10 Breccia — yellow-brown; large light-gray, fine-grained dolomite and greenish-gray shale fragments; rounded sand- and fine-pebble-sized dolomite, shale and yellow-brown siltstone in a porous, coarsely crystalline calcite matrix.
- 10-20 As above — lighter color; no dolomite; abundant light-gray limestone.
- 20-30 As above — no limestone; with medium-gray dolomite.
- 30-40 As above — more shale; dolomite is porous, friable and composed of tiny crystals.
- 40-50 As above.
- 50-60 Dolomite Breccia — medium-gray, fine-grained, angular dolomite, minor rounded fragments green-gray shale; cement: yellow-brown, porous crystal aggregates of calcite and quartz; much of the dolomite is porous and siliceous and some appears to be skeletal cement once containing oolites and fragments of limestone.
- 60-70 As above.
- 70-80 As above.
- 80-90 As above — with pale-yellow-brown calcareous siltstone and mudstone fragments.
- 90-100 As above — shale sand-size only.
- 100-110 Dolomite Breccia — light-gray to medium-gray; fine-grained, porous and friable in part, siliceous; cement: sugary aggregate of calcite and quartz crystals (0.25-0.5 mm); minor green-shale and yellow-siltstone in the breccia cement.
- 110-120 As above.
- 120-130 As above.
- 130-140 As above.
- 140-150 As above.

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- 150-160 Dolomite Breccia — medium-gray to pale-green; finely crystallized, porous; cement: pale-yellow, crystallized and sugary including small rounded fragments of siltstone and shale.
- 160-170 As above.
- 170-180 As above — shale pebbles to 10 mm.
- 180-190 As above — more cement.
- 190-200 As above — some cement white to light-gray with trace pyrite.

Elbrook Formation (200-260')

- 200-210 Limestone — light-gray to medium-dark-gray; very-finely-crystalline, minor porous portions; slightly argillaceous in part; veins of white and colorless, massive and crystallized calcite and quartz; limestone occasionally shows fine bedding and stylolites with trace of pyrite.
- 210-220 As above — minor brown stain, trace mica.
- 220-230 As above — minor siliceous skeletal limestone.
- 230-240 As above.
- 240-250 Dolomite — medium-light-brownish-gray; finely crystallized, porous in part, thinly bedded; minor white veins calcite and quartz.
- 250-260 As above.

GEOLOGIC SUMMARY

| | <u>ROCK UNIT</u> | <u>TIME ROCK UNIT</u> |
|---------|--|-----------------------|
| 0-200 | Blue Ridge Fault Breccia (mostly Elbrook ?) | ? |
| 200-260 | Elbrook Formation | Cambrian |

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
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