

OWNER: F. Bruce Forward, Subdivision Well #1
DRILLER: C. R. Moore
COUNTY: Rockingham (Penn Laird)

VDMR #1376
WWCR #524
TOTAL DEPTH: 400'

GEOLOGIC LOG

0-28 No sample.

Conococheague Formation (28-400')

- 28-30 Limestone — medium-dark-gray, aphanogranular and very-pale-orange fine-grained soft, leached limestone; minor light-gray to medium-dark-gray chert.
- 30-40 Limestone — medium-dark- aphanogranular limestone; interbedded with: buff-colored, fine-grained, dolomitic, argillaceous limestone with laminae of medium-gray limestone; medium-brown to medium-gray limey shale; medium-gray calcareous, and well rounded, coarse-grained sandstone; pale orange almost white chert; and minor medium crystalline dolomitic limestone.
- 40-50 Argillaceous Limestone — medium-dark-gray to pale-brown, shaly, minor white quartz and chert fragments, poorly consolidated red-brown sandstone and light brown leached silty limestone.
- 50-60 Limestone — medium-dark aphanogranular sandy limestone and light-gray, fine-grained dolomitic limestone; minor pyrite and veins of calcite; minor red-brown, very-coarse-grained rounded calcareous sandstone; trace white chert.
- 60-70 Argillaceous Limestone — medium-gray with minor pale orange; very-fine-grained to finely crystalline limestone and silicified sandstone.
- 70-80 Limestone — medium-dark-gray, aphanogranular; minor coarse sand in the limestone; minor chert and vein quartz.
- 80-90 As above — minor dolomitic portion.
- 90-100 Argillaceous Limestone — medium-gray, aphanogranular; minor medium-light-gray oolitic limestone; minor sand in limestone; minor coarse-grained sandstone; light-brown leached limestone and euhedral vein calcite.
- 100-110 Argillaceous Limestone — medium-dark-gray, fine-grained, oolitic, sandy; minor sandy oolitic chert, and medium-gray calcareous shale, trace chalcedony.

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- 110-120 Leached Argillaceous Limestone — medium-light- to medium-dark-brownish-gray; fine-grained; minor medium- to light-brown calcareous shale; white vein quartz with iron oxide stain, minor sandy limestone.
- 120-130 Shaly Limestone — medium-blue-gray, very-fine-grained argillaceous; trace vein calcite and fine-grained sandstone.
- 130-140 Calcareous Shale and Siltstone — medium-gray, fine-grained, hard sandy shale interbedded with laminae and lenses of fine- to coarse-grained, calcareous, subrounded sandstone; leached light-brown and buff sandstone; and shale, also minor vein calcite.
- 140-150 Calcareous Shale — medium-dark-gray, minor portion leached to light-pink-brown; minor buff, medium-grained sandstone and loose sand; trace oolitic sandy chert.
- 150-160 As above — minor white structureless chert.
- 160-170 Dolomite — medium-dark-gray; very-fine-grained to finely crystalline; argillaceous; minor loose well-rounded sand grains; trace white sandy, oolitic chert.
- 170-180 As above — minor buff-colored, calcareous siltstone leached from the dolomite.
- 180-190 No sample.
- 190-200 Sandy Argillaceous Limestone — medium- to medium-dark-gray; aphanogranular, poorly oolitic with scattered sand grains; minor orange-brown calcareous siltstone; trace white orthoquartzite and sandy oolitic chert.
- 200-210 No sample.
- 210-220 Limestone and Shale (mixed) — both dark-gray, fine-grained, minor intraformational conglomerate with well-rounded sand and pebbles of limestone in a light-gray matrix; minor white sandy, oolitic chert and minor orange-brown, leached, coarse-grained sandstone and loose sand; leached orange-brown silty limestone.
- 220-230 As above — more loose orange sand, minor white structureless, opaline chert.
- 230-240 As above — less shale.

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- 240-250 Argillaceous Limestone — medium-dark-gray, fine-grained; buff to orange, sandy, silty, leached limestone, sometimes in rounded fragments.
- 250-260 As above.
- 260-270 As above.
- 270-280 As above.
- 280-290 As above.
- 290-300 As above — more shaly.
- 300-310 Dolomite and Limestone — light-gray, very-finely-crystallized calcareous dolomite and medium-dark-gray, fine-grained, dolomitic limestone, with dusty pyrite; minor loose rounded grains of sand and trace of sandstone.
- 310-320 Shaly Dolomitic Limestone — medium-gray to dark-gray, slightly fissile, and siliceous; laminae and lenses of medium-dark-gray, medium-grained, rounded- sand with carbonate cement; minor vein calcite.
- 320-330 As above — some portions very argillaceous.
- 330-340 As above — slightly darker.
- 340-350 As above — slightly lighter.
- 350-360 As above.
- 360-370 As above — less sand.
- 370-380 Dolomitic Limestone — medium-gray, fine-grained with finely crystalline dolomite, minor very-fine sand in the limestone portion.
- 380-390 Limestone — medium-gray, fine-grained, with minor oolites and scattered sand grains.
- 390-400 Limestone — medium-gray, fine-grained massive.

GEOLOGIC SUMMARY

<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-28 No sample	
28-400 Conococheague Formation 110-310 heavily leached.	Ordovician