

OWNER: M. W. Williams
DRILLER: C. R. Moore
COUNTY: Madison (Madison Mills)

VDMR Well No: 1350
WWCR Well No: 37
Total Depth: 280

GEOLOGIC LOG

Metamorphosed extrusives (0-280)

0-10	Greenstone - light-gray-green, very-fine grained; amphibole, chlorite, epidote, mica, iron oxides.
10-20	As above - with veins of calcite; trace pyrite.
20-30	As above - with euhedral vein calcite, in open veins.
30-40	As above
40-50	Greenstone - light-gray-green, very-fine grained; amphibole chlorite, epidote, plagioclase, minor pyroxene; trace calcite and pyrite; thin section examination shows relict flow breccia structure.
50-60	As above - with veins of calcite, minor specular hematite.
60-70	Metamorphosed Porphyritic Basalt - dark-red-gray, 2mm grain size to aphanitic; andesine, chlorite, amphibole, epidote, glass and iron oxides.
70-80	As above - slightly purple; minor veins of calcite.
80-90	Greenstone - light-greenish-gray with minor purple hematite stain, very-fine-grained; chlorite, amphibole, and epidote; numerous fractures recemented with calcite, trace pyrite.
90-100	As above - more purple stain
100-110	As above - less purple stain
110-120	Metamorphosed Flow Breccia - medium-greenish-gray and medium-purplish-gray; very-fine-grained; angular fragments of greenstone with dark-red-gray cement of metamorphosed basalt; minor calcite and dolomite, trace pyrite.
120-130	Greenstone - medium-red-gray to medium-green-gray, very-fine-grained, stringers of dark chlorite.
130-140	As above - more-red-gray; trace serpentine on fractures.
140-150	As above - less red-gray
150-160	As above

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- 160-170 Greenstone - medium-gray-green, very-fine-grained, stringers and fracture fillings of dark chlorite; occasional fragments of vein calcite.
- 170-180 Greenstone - light-pinkish-green-gray; very-fine-grained, numerous fractures; amygdules and fracture fillings of dark-green chlorite and iron oxides.
- 180-190 Metamorphosed Basalt - medium gray-green to dark-red-gray; very-fine-grained; many fractures recemented with iron oxides, feldspar and calcite.
- 190-200 Metamorphosed Scoria - medium-pink-gray, green-gray and orange-gray, very-fine grained mottled uneven texture, most vesicles filled with chalcedony or zeolites.
- 200-210 Greenstone - medium-light-greenish gray, very-fine-grained, minor veins of calcite.
- 210-220 As above - vein calcite is pale pink, brecciation is evident.
- 220-230 As above - no veins.
- 230-240 As above - with minor dark-reddish-gray basalt.
- 240-250 As above
- 250-260 Metamorphosed Basalt - medium-dark-red-gray, very-fine-grained, needles of amphibole in a cryptofelsitic matrix of feldspar, epidote, sphene and chlorite.
- 260-270 As above
- 270-280 Metamorphosed Basalt - dark-red-gray, aphanitic, microlites of plagioclase in a dark, glassy matrix, numerous fractures recemented by iron oxides, cherty material or calcite.

GEOLOGIC SUMMARY

ROCK UNIT

TIME ROCK UNIT

0-280 Metamorphosed extrusives

Triassic

Some of the greenstones may be metamorphosed fragmental volcanics; others may be flows or intrusives. The deep-red color is indicative of basalt, but the origin of the lighter-green greenstones is unknown.

VIRGINIA DIVISION OF MINERAL RESOURCES
Hollis N. Walker - Geologist
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