



OWNER: R. Burchfield (North Lake Estates Well #2)  
DRILLER: Frank W. Martin Drilling Co.  
COUNTY: Roanoke (Roanoke)

VDMR WELL # 1390  
WWCR WELL # 438  
TOTAL DEPTH : 250

GEOLOGIC LOG

0-10 No sample

Bays Formation (10-90')

10-20 Arkose and Shale - medium-light greenish-gray, very-fine- to medium-coarse-grained, very angular, feldspathic sand in an abundant matrix of sericite chlorite and minor carbonate. Shale very-fine-grained and slightly fissile; about half of this sample is weathered to pale-orange-brown; minor ferruginous concretions; trace dark red-brown sandstone.

20-30 As above - less coarse-grained arkose, less weathering no ferruginous concretions.

30-40 As above

40-50 As above - minor dark-brown shale; trace vein calcite.

50-60 Shaly Arkose - medium-light-greenish-gray, very-fine-to medium-coarse-feldspathic sand in a matrix of sericite, chlorite and minor calcite; weathered fractures with water rounding in coarser material.

60-70 As above - less weathered material.

70-80 As above

80-90 As above - more calcareous.

Athens Formation (90-250')

90-100 Calcareous Shale - medium-dark-gray, slightly purple; fissile; trace of calcite veins; minor shaly arkose as above.

100-110 As above - no sandstone, more vein calcite; minor fractures weathered to orange-tan and green, some fragments show rounding.

110-120 As above - minor orange-yellow sandstone.

120-130 Calcareous Shale - medium-dark-bluish-gray; minor vein calcite; one-third of sample weathered to pale-greenish-yellow and light orange.

130-140 As above - part of weathered portion sandy and red.

140-150 As above

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#1390

150-160	Calcareous Shale - dark-blue-gray slightly fissile; minor veins of calcite and minor leached yellow, orange and yellow-green shale.
160-170	As above
170-180	As above
180-190	As above - more fissile, less weathering.
190-200	As above - trace of weathered material (may be contamination).
200-210	As above
210-220	As above
220-230	As above
230-240	Calcareous Shale - dark-blue-gray, minor veins of calcite.
240-250	As above - veins are micro faults which show two stages of movement, they also contain quartz.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-10	No sample	
10-90	Bays Formation	Middle Ordovician
90-250	Athens Formation	Middle Ordovician

Virginia Division of Mineral Resources  
Hollis N. Walker, Geologist  
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