

INTERVAL SHEET

WWCR 543

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VDMR Well No: Well No. 1476

Date rec'd: 2/4/66

Sample Interval: from 0 to 415

PROP: Town of Timberville #3

Number of samples: 53 (Cuttings)

COMP: Sydnor Pump & Well Co.

Total Depth: 418

COUNTY: Rockingham (Timberville)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0 - 4	249 - 255	-	-
4 - 10	255 - 265	-	-
10 - 20	265 - 272	-	-
20 - 33	272 - 281	-	-
33 - 43	281 - 291	-	-
43 - 53	291 - 300	-	-
53 - 63	300 - 306	-	-
63 - 73	306 - 314	-	-
73 - 83	314 - 320	-	-
83 - 92	320 - 323	-	-
92 - 103	323 - 337 *	-	-
103 - 115	337 - 346	-	-
<i>missing</i> 115 - 125	346 - 351.7 *	-	-
135 - 142-1/2	365 - 370 * <i>missing</i>	-	-
142-1/2 - 149	370 - 375	-	-
149 - 161	375 - 380	-	-
161 - 165	380 - 385 *	-	-
165 - 177	385 - 390 *	-	-
177 - 189	390 - 395	-	-
189 - 194	395 - 400 *	-	-
194 - 197	400 - 405	-	-
197 - 201	405 - 410 *	-	-
201 - 206	410 - 415 *	-	-
206 - 211	-	-	-
211 - 214	-	-	-
214 - 217	-	-	-
217 - 223-1/2	-	-	-
223-1/2 - 241	-	-	-
241 - 242-1/2	-	-	-
242-1/2 - 249	-	-	-

* Unwashed samples only

OWNER: Town of Timberville, Well #3
DRILLER: Sydnor Pump and Well Co., Inc.
COUNTY: Rockingham (Timberville)

VDMR #1476
WWCR #543
TOTAL DEPTH: 418'

GEOLOGIC LOG

Overburden (0-142-1/2')

- 0-4 Clay — light-gray brown with fine, angular, quartz sand and minor well rounded granules of sandstone.
- 4-10 Sand, Gravel and Clay — medium-brown, slightly reddish; fine- to coarse-grained-angular sand; medium pebbles of dark-gray and tan sandstone; minor friable cream colored sandstone, trace chert.
- 10-20 "
- 20-33 Sand and Gravel — yellow-brown, fine- to coarse, angular to rounded sand; rounded granules and pebbles of cream colored to dark-reddish-gray sandstone and conglomeratic sandstone; orange-brown and light-gray to dark-gray chert; the pebbles have been broken by the drill and the largest fragment is 15 mm. long; minor clay.
- 33-43 largest fragment 30 mm. long.
- 43-53 "
- 53-63 largest fragment 12 mm.
- 63-73 Gravel — greenish-gray, orange-brown, salmon-brown and dark-reddish-gray, fine- to coarse; rounded pebbles of fine- to very-coarse-grained sandstone and conglomeratic sandstone; one pebble fragment shows bedding and grain size variation from very-fine sand to granules; the largest fragment is completely angular, 42 mm. long and probably was part of a boulder; angular small pebble size fragments of chert; minor clay.
- 73-83 with one piece of a flat water-worn boulder of fine grained sandstone (73 x 15 mm.).
- 83-92 more finely crushed by drill; largest fragment 13 mm. long.
- 92-103 Gravel — light-brown, rounded pebbles to 48 mm. long, angular fragments of larger pebbles and boulders; fine- to medium-grained sandstone; small angular fragments of gray chert.

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103-115 Gravel — cream-colored, light-brown to dark-reddish-gray, rounded, fine- to coarse-pebbles of fine-grained sandstones and conglomeratic sandstone and chert.

115-125 Clay — light-brown with fine- to medium-sand; granules to small pebbles of light- to dark-gray sandstone and chert; one large angular fragment of medium-gray, coarse-grained, quartzitic sandstone (34 mm. long).

125-135 No sample.

135-142-1/2 Clay — pale-orange-brown, with sand, granules and fine pebble size fragments of chert and rounded sandstone; clay slightly indurated.

Zone of Caves and Collapse in Beekmantown Formation (142-1/2-415')

142-1/2-149 Chert, Dolomite and Gravel — dark-blue-gray chert: massive, porous and oolitic; brown-gray, medium-crystalline, argillaceous dolomite; small pebbles of light-brown to dark-gray, medium- to fine-grained sandstone; minor clay.

149-161 dolomite more abundant, bluish and more coarsely crystalline; minor vein quartz.

161-165 Argillaceous Dolomite — pale-orange-brown, tan and dark-gray, fine-grained, bedded, argillaceous dolomite; dark-gray chert; minor vein quartz and clay.

165-177 Clay and Argillaceous Dolomite — tan clay; light-brown to medium-gray, fine-grained argillaceous dolomite; minor sandstone, chert, vein quartz and coarsely-crystalline, blue-gray dolomite.

177-189 Dolomite — medium-gray, medium-crystalline; cream-colored vein dolomite; minor chert, clay and trace of vein quartz.

189-194 "

194-197 less clay.

197-201 Dolomite and Clay — medium-gray, fine- to coarsely-crystalline dolomite; minor cream-colored vein dolomite and medium-dark-blue-gray chert; light-brown clay.

201-206 Dolomite — light- to dark-blue-gray, medium-crystalline, minor dark-blue chert, white vein quartz, light-gray vein dolomite, orange-brown clay.

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- 206-211 Dolomite — medium-gray, medium-crystalline; cream colored vein dolomite, minor vein quartz, dark-gray chert and light-brown clay.
- 211-214 Dolomite — medium-gray, medium-crystalline, calcareous, friable; cream to gray coarsely crystalline vein dolomite; brown and gray, bedded, argillaceous dolomite; minor dark-blue-gray often porous chert; minor clay and vein quartz; minor thin laminae mudstone, vein quartz and clay.
- 214-217 "
- 217-223-1/2 Dolomite — dark-blue-gray, fine- to coarse-crystalline; white to cream very-coarsely-crystalline vein dolomite; minor light-to dark-blue-gray chert, trace clay and vein quartz.
- 223-1/2-241 Solution Zone — dolomite as described above that has been stained with iron oxide, often porous and friable; vein quartz showing box works where dolomite crystals were; laminae of siliceous mudstone.
- 241-242-1/2 Basalt, Dolomite and Chert — dark-blue-green-gray, fine-grained basalt: relict micro-subophitic texture, plagioclase (albite), epidote, amphibole, chlorite, magnetite and minor quartz; dark-gray, fine- to coarse- crystalline dolomite; cream colored vein dolomite; light- to dark-gray chert; minor vein quartz; the sample was finely crushed by the drill and structural relationships were obscured.
- 242-1/2-249 Limestone — medium-dark-gray, aphanocrystalline, minor light- to dark-gray chert; trace of basalt and dolomite as above, minor tan clay.
- 249-255 minor vein calcite.
- 255-265 "
- 265-272 Limestone — medium-gray, aphanocrystalline, minor laminae siltstone, boxworks of blue-gray chert with rhombohedral shaped cavities, massive chert, vein quartz.
- 272-281 Clay, Limestone and Sandstone Pebbles — light-brown clay; medium-dark-blue-gray, fine-grained limestone; minor chert; cream to red-brown sand, granules and pebbles of quartz, and sandstone; trace basalt from above.
- 281-291 "
- 291-300 "

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- 300-306 Clay, Limestone and Sandstone Pebbles — light-brown clay; medium-dark-blue-gray, fine-grained limestone; minor chert; cream to red-brown sand, granules and pebbles of quartz and sandstone; trace basalt from above.
- 306-314 Limestone — medium-blue-gray to tan, fine-grained, argillaceous; minor clay; trace vein quartz.
- 314-320 "
- 320-323 "
- 323-337 Clay and Limestone — light-brown clay; medium-gray, fine-grained limestone; minor quartz sand.
- 337-346 "
- 346-351.7 "
- 351.7-365 No sample.
- 365-370 Limestone — medium-gray, fine-grained, minor clay.
- 370-375 Solution Zone — medium-dark-blue-gray, fine-grained limestone; siliceous claystone and siltstone; porous residual siliceous material from which carbonates have been leached; thin plates of vein quartz some with euhedral crystals; minor clay; two small sandstone pebbles.
- 375-380 some of the limestone fragments are water worn, no sandstone pebbles.
- 380-385 "
- 385-390 Dolomite — light-gray, medium-crystalline, minor siliceous veinlets; trace chert.
- 390-395 Clay and Limestone — white to light-brown clay; medium-dark-gray, fine-grained limestone; minor vein quartz.
- 395-400 "
- 400-405 Limestone — medium-gray, fine-grained, argillaceous; orange-brown, argillaceous, silica laminae.
- 405-410 more clay.
- 410-415 "
- 415-418 No sample.

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GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-142-1/2	Overburden	Recent
142-1/2-415	Solution and Collapse Zone in Beekmantown Formation	Ordovician
	Basalt dike or sill at 241-242-1/2'	
415-418	No sample	

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
February 9, 1966