

INTERVAL SHEET

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Date 6/12/62

PROP: Va.Division of Parks

COMP: Douglas & Dickinson, Inc.

COUNTY: Westmoreland (Baynesville)

VDMR Well No.: 852 WWCR 151

Sample Interval: from 0 to 719

Total depth 719

Oil Gas Water X Exploratory

Cuttings X Core Other

From-To	From-To	From-To	From-To	From-To
-	0 - 21	692 - 719	No washed samples	-
-	21 - 42	-	-	-
-	42 - 63	-	-	-
-	63 - 84	-	-	-
-	84 - 105	-	-	-
-	105 - 126	-	-	-
-	126 - 147	-	-	-
-	147 - 168	-	-	-
-	168 - 189	-	-	-
-	189 - 210	-	-	-
-	210 - 231	-	-	-
-	231 - 252	-	-	-
-	252 - 273	-	-	-
-	273 - 294	-	-	-
-	294 - 315	-	-	-
-	315 - 334	-	-	-
-	334 - 357	-	-	-
-	357 - 378	-	-	-
-	378 - 399	-	-	-
-	399 - 420	-	-	-
-	420 - 441	-	-	-
-	441 - 462	-	-	-
-	462 - 483	-	-	-
-	483 - 504	-	-	-
-	504 - 525	-	-	-
-	525 - 546	-	-	-
-	546 - 567	-	-	-
-	567 - 630	-	-	-
-	630 - 672	-	-	-
-	672 - 692	-	-	-

OWNER: Westmoreland State Park
DRILLER: Douglas and Dickinson, Inc.
COUNTY: Westmoreland (Baynesville)

VDMR: 852
WWCR: 151
TOTAL DEPTH: 719

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-63')

- 0-21 Sand - yellow to light brown, coarse to medium grained, angular to subangular, very argillaceous and silty
- 21-42 Sand - yellow to light brown, coarse to medium grained, angular to subangular, very argillaceous and silty, trace of iron
- 42-63 Sand - yellow to light brown, coarse to fine-grained, angular to subangular, slightly silty

CALVERT FORMATION (63-210')

- 63-84 Clay - gray, very silty to fine sandy, locally yellowish-brown, abundant gray clay, silty, trace of iron
- 84-105 Clay - gray to purplish-gray, weathered yellowish-brown to blackish-brown, sandy and silty, some ferricrete, 10% granule gravel, sand is poorly sorted
- 105-126 " very slightly diatomaceous
- 126-147 Sand - tan, very clayey; fine- to very fine-grained, fairly well-sorted; small number of diatoms (Cascinodiscus), trace of iron; slightly diatomaceous
- 147-168 " slightly to moderately diatomaceous
- 168-189 Silt - greenish-gray, clayey, moderately diatomaceous
- 189-210 Clay - pale greenish-gray, moderately silty

NANJEMOY FORMATION (210-315')

- 210-231 Sand - gray, medium to fine-grained, subangular to angular, slightly argillaceous and silty, abundant shell fragments, 20% of glauconite in calcareous matrix, trace of collophane phosphorite common - nodules, bone and shell fragments

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- 231-252 Sand - dark gray, slightly silty, 15% shell fragments; coarse to fine-grained, angular to subangular; 60% blackish-to dark-green, furrowed glauconite; foraminifer common, a few ostracods
- 252-273 Sand - gray, slightly clayey (tan to gray clay), small number of shell fragments; fine-grained, angular to rounded; clear to greenish quartz with 20% blackish-green, furrowed glauconite; minor pyrite, phosphatic nodules, bone fragments, and shell fragments; abundant Foraminifera (Cibicides), a few ostracods
- 273-294 Sand - moderately-abundant matrix of brownish-gray micaceous clay; coarse to fine-grained, skewed fine, angular to subangular, very glauconitic, and argillaceous, slightly silty, trace of mica, small number of shell fragments, and Foraminifera (Cibicides)
- 294-315 Sand - 55% angular green quartz; 35% dark- to medium-green glauconite (slightly reworked); 10% very-coarse, well-rounded quartz; small number of shell fragments, Ostracoda, and Foraminifera (*Virgerina*)

MATTAPONI FORMATION (315-672')

- 315-334 Sand - dark gray, medium to fine-grained, angular to subangular, very glauconitic, argillaceous, slightly silty, trace of mica, small number of shell fragments; moderately abundant matrix of greenish-gray clay
- 334-357 Sand - blackish-green, autochthonous glauconite (75%); clear and greenish quartz, fine to coarse-grained; a few foraminifers
- 357-378 Sand - abundant clay matrix
- 378-399 Sand - black, medium- to coarse-grained, black glauconitic (50%); slightly argillaceous and silty, trace of mica and shell fragments
- 399-420 Sand - gray, medium to fine-grained, subangular to angular, black glauconite (50%), very argillaceous, slightly silty, small number of Foraminifera (Cibicides); pink and light-gray clays

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- 420-441 Sand - gray, medium to fine-grained, subangular to angular, clear and yellow Quartz, very glauconitic (approximately 50%), slightly silty, small number of Foraminifera (Globigerina) ("brown speckled sand")
- 441-462 Sand - gray, medium to coarse grained, subangular to angular; clear and greenish quartz, very glauconitic, small number of shell fragments and Foraminifera (Nodosaria, Cibicides) ("gray speckled sand")
- 462-483 Sand - gray, coarse- to fine-grained, moderately sorted; very glauconitic, some pink and light-gray sand-free clays, slightly silty, small number of shell fragments and Foraminifera (Nodosaria, Cibicides, and Globigerina); Dentalina; a few ostracods
- 483-504 Sand - "
- 504-525 Sand - gray, medium to fine grained, subangular to angular, very glauconitic, slightly argillaceous and silty, abundant Foraminifera (Cibicides)
- 525-546 Sand - gray, medium to fine grained, subangular to angular, very glauconitic, and argillaceous, slightly silty, Foraminifera abundant (Cibicides)
- 546-567 " "
- 567-630 Clay - variegated, very sandy, light gray, fine-grained, well-sorted, subangular to angular, very argillaceous and silty, slightly glauconitic, small number of Foraminifera (Cibicides)
- 630-672 Sand - light brown, medium to fine grained, subangular to angular, slightly glauconitic and silty, small number of Foraminifera (Cibicides)

PATUXENT FORMATION (672-719)

- 672-692 Sand - light brown, coarse-grained, subangular to subrounded, slightly glauconitic; arkosic subrounded
- 692-719 Sand - light gray to white, medium- to coarse-grained, subangular to subrounded; arkosic; slightly glauconitic; trace of silt

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GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-63 [±]	Columbia Group	Pleistocene
63-210 [±]	Calvert Formation	Middle Miocene
210-315 [±]	Nanjemoy Formation	Middle Eocene
315-672 [±]	Mattaponi Formation	Paleocene
672-719 [±]	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
James L. Ruhle - Geologist
June 26, 1963

Revised by Robert H. Teifke, Geologist
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