

INTERVAL SHEET

WWCR-96

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VDMR Well No: 1859

Date rec'd: 4/18/67

Sample Interval: from 42 to 737

PROP: Corrotoman-By-The-Bay (J. Miller) Number of samples: 67

COMP: Douglas & Dickinson

Total Depth: 737

COUNTY: Lancaster (Griffin Landing)

Oil or Gas: Water:  Exploratory:

From-To	From-To	From-To	From-To
no samples	336- 346	635 - 645	-
42 - 52*	346- 357	645 - 656	-
52 - 63*	357- 368	656 - 667	-
63 - 73*	368- 378	667 - 677*	-
73 - 84*	378- 389	677 - 686*	-
84 - 94*	389- 399	686 - 697*	-
94 - 105*	399- 409	697 - 707	-
105 - 115	409- 420	707 - 717	-
115 - 126	420- 431	717 - 727	-
126 - 136*	431- 441	727 - 737	-
136 - 148*	441- 452	-	-
148 - 158*	452- 463	-	-
158 - 169*	463- 474	-	-
169 - 179*	474- 484	-	-
179 - 189*	484- 495	-	-
189 - 199*	495- 505*	-	-
199 - 210*	505- 515	-	-
210 - 220*	515- 526	-	-
220 - 231*	526- 536*	-	-
231 - 242*	536- 547	-	-
242 - 253*	547- 557*	-	-
253 - 263*	557- 568*	-	-
263 - 274*	568- 578*	-	-
274 - 284*	578- 589	-	-
284 - 294*	589- 599	-	-
294 - 305*	599- 609*	-	-
305 - 315*	609- 619*	-	-
315 - 326*	619- 625*	-	-
326 - 336*	625- 635	-	-
-	-	-	-

\* unwashed samples only

OWNER: Corrotoman-By-The-Bay (J. Miller)  
DRILLER: Douglas & Dickinson, Inc.  
COUNTY: Lancaster (Griffin Landing)

VDMR: 1859  
WWCR: 96  
TOTAL DEPTH: 737'

GEOLOGIC LOG

Depth in feet

0-42 No samples

COLUMBIA GROUP (42-84')

42-52 Clay - reddish-brown, abundant fine- to medium-grained sand; traces of weathered feldspar and plant material  
52-63 "  
63-73 Silt and Sand - bright orange, clayey; coarse-grained silt to fine-grained sand, very well-sorted; traces of muscovite and glauconite  
73-84 "

YORKTOWN FORMATION (84-136')

84-94 Clay - medium greenish-gray, mottled (weathered) reddish-brown, deeply weathered; greenish-gray clay is silty, sandy, micaceous, and contains plant remains and a trace of glauconite  
94-105 "  
105-115 Shell and Sand - reddish-brown, slightly silty and clayey; 60% pelecypod shell fragments and a few Turritella, and 40% fine-grained, fairly well-sorted sand; traces of glauconite and muscovite; plant fragments common  
115-126 "  
126-136 Clay - light-brown, silty, moderately sandy; a few shell fragments; plant fragments common

CALVERT FORMATION (136-326')

136-148 Sand - brownish-gray, locally limonitic, very clayey; fine- to very fine-grained, well sorted, angular; traces of muscovite and glauconite; 5% pelecypod shell fragments; plant fragments common

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- 148-158 Clay - gray, with blue cast, locally orange-brown, very slightly (locally) sandy; traces of glauconite and phosphorite; very few shdl and plant fragments
- 158-169 "
- 169-179 " pink, pure clay and green, silty clay with purple cast
- 179-189 Clay - gray, with blue cast, silty, trace of sand; a very few shell and bone fragments
- 189-199 "
- 199-210 " very silty
- 210-220 Clay - dark-gray, compact to silty; locally orange-brown
- 220-231 " silty to fine sandy
- 231-242 Sand - pale orange-brown, very clayey; medium-grained, moderately sorted, subrounded
- 242-253 Clay - gray, with blue cast, slightly to moderately silty; a few sand-size grains of quartz, glauconite, and phosphorite; diatomaceous
- 253-263 "
- 263-274 Clay - light bluish-gray; diatomaceous
- 274-284 "
- 284-294 "
- 294-305 " with a few foraminifers (Siphogenerina)
- 305-315 " "
- 315-326 " "

CHICKAHOMINY FORMATION (326-378')

- 326-336 Sand - grayish-brown, clean; coarse-grained, fairly well-sorted, subangular to subrounded; about 15% coarse pelecypod shell fragments; trace of phosphorite

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- 336-346 Sand - grayish-brown, clean; medium- to coarse-grained, fairly well-sorted, subangular to subrounded; trace of phosphorite; 5-10% pelecypod shell fragments; a few foraminifers
- 346-357 Sand - dark grayish-brown, slightly silty and clayey (some orange-clay) (?); medium- to coarse-grained, moderately sorted, subangular to subrounded; grains and fragments of phosphorite common but not abundant; a few shell fragments and echinoid spines; a few foraminifers
- 357-368 Clay - brownish-gray, calcareous, locally orange-brown (limonitic), very silty and sandy; non-clay fraction is medium-grained, moderately sorted; a few plant fragments, and abundant fragments of arenaceous (glaucanitic) and bioclastic limestone; a few fragments of phosphorite
- 368-378 Sand - dark-gray, very clayey (clay is very calcareous); fine- to medium-grained, moderately sorted; subangular to subrounded; about 10% fresh glauconite; 90% quartz (clear) and sand-size bioclasts and a trace of phosphorite; a few coarse shell fragments, limestone fragments, and echinoid spines; foraminifers and ostracods abundant

NANJEMOY FORMATION (378-463')

- 378-389 Sand - grayish-brown, moderately clayey (calcareous); medium- to coarse-grained, moderately sorted, 15-20% glauconite and goethite after glauconite, 80-85% yellow-stained, subangular to subrounded quartz; a few fragments of shells and arenaceous (glaucanitic) limestone; microfossils abundant
- 389-399 Sand - brown, very slightly clayey; medium- to very coarse-grained, fairly well-sorted; 80% subrounded to rounded quartz, and 20% medium-grained glauconite; a few shell and limestone fragments, and Late Eocene foraminifers
- 399-409 "
- 409-420 Shell and Limestone - light-gray, moderately sandy; sand is fine- to medium-grained; clear, angular quartz, and fresh glauconite; local carbonate cementation; shell is predominately ramose bryozoan with a few pelecypod fragments, echinoid spines, and corals; foraminifers and ostracods extremely abundant

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420-431 Limestone and Shell - (bioclastic deposit, locally indurated)  
light-gray to white, very arenaceous, sand is medium- to  
coarse-grained quartz and brown goethite after glauconite;  
microfossil shell material is predominantly ramose bryozoan,  
with some pelecypods, echinoid spines, and corals;  
foraminifers and ostracods extremely abundant

431-441 Sand - dark-brown, slightly clayey; medium- to coarse-grained,  
well-sorted; 90% dark-brown goethite after glauconite, 10%  
stained, subrounded to well-rounded quartz

441-452 "

452-463 "

MATTAPONI FORMATION (463-707')

463-474 Sand - "dark-brown, slightly clayey; medium- to coarse-grained,  
well-sorted; 90% dark-brown goethite after glauconite, 10%  
stained, subrounded to well-rounded quartz; 30-40%  
relatively fresh, medium-grained glauconite; foraminifers  
common

474-484 "

484-495 Sand - black, slightly clayey (olive-green clay); 90% medium- to  
coarse-grained, well sorted, fresh glauconite; and 10%  
stained, rounded quartz

495-505 " with a few foraminifers

505-515 " "

515-526 Sand - brown, with red cast, slightly clayey (bright, variegated  
clay), 10% rounded granule gravel; coarse- to very coarse-  
grained, fairly well-sorted, subrounded; very slightly glauconitic;  
minor garnet, brown epidote, very feldspathic (fresh potassic  
feldspar) (ARKOSIC SAND)

526-536 Clay - bright, mottled, sandy; sand is predominately medium- to  
very coarse-grained, fresh glauconite; traces of muscovite,  
feldspar; hematite common

536-547 "

547-557 "

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- 557-568 Clay - gray, very sandy; sand is predominately coarse-grained, fresh glauconite
- 568-578 Clay - bright, mottled, slightly sandy; sand is predominately fresh glauconite
- 578-589 Sand - brownish-gray, silty and clayey; fine- to coarse-grained, well sorted; 75% fresh glauconite, 25% clear to greenish, fine, angular quartz; traces of muscovite, pyrite, garnet, feldspar, phosphorite; a few shell fragments, bone fragments, Nodosaria
- 589-599 Sand - medium-brown, slightly clayey; coarse- to very coarse-grained, well sorted, subangular to subrounded; clear quartz, with 10-20% fresh potassic feldspar, 2% fresh glauconite, traces of garnet and muscovite (ARKOSIC SAND)
- 599-609 "
- 609-619 Sand - dark-gray, very clayey; medium-to coarse-grained, fairly well-sorted; 75% fresh glauconite, 25% clear quartz; traces of muscovite and phosphorite; trace of bone; a few fragments of Nodosaria
- 619-625 "
- 625-635 Sand - medium-brown, moderately clayey (mottled clay); medium-to very coarse-grained, fairly well-sorted, subrounded; slightly feldspathic and glauconitic (10% each); traces of muscovite, phosphorite, garnet, and shell debris (Arkasic Sand)
- 635-645 Clay - brown, (variegated), very silty and sandy; sand is medium-to coarse-grained, fairly well-sorted; 60% fresh glauconite, and 40% clear, poorly-rounded quartz; traces of phosphorite, feldspar, garnet, muscovite and pyrite; a very few fragments of pelecypod, bryozoan, and Nodosaria
- 645-656 Sand - black, slightly to moderately clayey; medium- to coarse-grained, very well-sorted; 95% fresh glauconite, 5% stained and rounded quartz; traces of pyrite, phosphorite and shell
- 656-667 "
- 667-677 Clay - medium-gray, locally orange-brown, small amount of coarse-grained glauconite
- 677-686 "

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- 686-697 Clay - bright, mottled, moderately sandy; sand is moderately glauconitic; a few plant fragments
- 697-707 Sand - black, slightly clayey; medium-grained, well sorted; 75% fresh glauconite, 25% clear, angular quartz; a few fragments of Nodosaria

PATUXENT FORMATION (707-737<sup>1</sup>)

- 707-717 Sand - brown, very slightly clayey, about 10% granule gravel; coarse- to very coarse-grained, well sorted (skewed coarse) subrounded to rounded; moderately feldspathic; pyritic; garnetiferous
- 717-727 " with trace of gravel
- 727-737<sup>1</sup> Sand - brown, slightly clayey; coarse-grained, well sorted, subrounded; moderately feldspathic; trace of glauconite

GEOLOGIC SUMMARY

<u>Rock Unit</u>	<u>Age</u>
0-42 <sup>1</sup>	No samples
42-84 <sup>1</sup>	Columbia Group
84-136 <sup>1</sup>	Yorktown Formation
136-326 <sup>1</sup>	Calvert Formation
326-378 <sup>1</sup>	Chickahominy Formation
378-463 <sup>1</sup>	Nanjemoy Formation
463-707 <sup>1</sup>	Mattaponi Formation
707-737 <sup>1</sup>	Patuxent Formation
	Pleistocene
	Upper Miocene
	Middle Miocene
	Late Eocene
	Middle Eocene
	Paleocene
	Early Cretaceous

Virginia Division of Mineral Resources  
 Robert H. Teifke, Geologist  
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