

Sheet No. 1

VDMR WELL NO. 0228

Sample Interval 50-342

(10)

Total Depth _____

PROP: ? @ CUMBERLAND WHARF
COUNTY: NEW KENT
VDMR WELL NO.: 0228
FROM: TO:

Oil _____ Gas _____ Water Exploratory _____

Cuttings Core _____ Other _____

From-To	From-To	From-To	From-To	From-To
50-70 ⁷⁷	330-342 ⁵⁰	<u>WASHED</u> <u>SAMPLES</u>	320-330	63 -
70-90 ⁸⁷	-	50-70-57	330-342	52 -
90-110 ⁹¹	-	70-90-62	-	-
110-130 ⁷³	-	90-110-55	-	-
130-150 ⁷⁶	-	110-130-60	-	-
150-170 ⁷²	-	130-150-42	-	-
70-190 ¹⁰³	-	150-170-11	-	-
190-200 ⁹⁶	-	170-190-20	-	-
200-215 ⁵⁴	-	190-200-21	-	-
215-225 ⁶⁹	-	200-215-59	-	-
225-235 ¹⁰¹	-	215-225-58	-	-
235-250 ⁵⁰	-	225-235-58	-	-
250-265 ⁷¹	-	235-250-66	-	-
265-275 ⁸⁸	-	250-265-71	-	-
275-285 ⁹	-	265-275 ⁵⁵	-	-
285-300 ⁴¹	-	275-285 ⁹	-	-
300-310 ⁴⁹	-	285-300 ³⁹	-	-
310-320 ¹⁷	-	300-310 ³⁵	-	-
320-330 ⁷²	-	310-320 ¹⁰	-	-

OWNER:
 DRILLER:
 COUNTY: New Kent Co. (Cumberland Wharf)

VDMR # 0228
 WWCR # 10
 Depth: 342'

SAMPLE EXAMINATION
 (washed)

CALVERT FORMATION (50-87')

⁸⁷
~~50-70~~ Clay, gray, marly, glauconitic, pyritic, with shell fragments

NANJEMOY FORMATION (87-

~~70-110~~ Sand, quartz, very fine grained, angular, argillaceous, slightly
 87 glauconitic

110-130 Predominantly finely pulverized shell fragments with abundant sand and foraminifera

130-150 Clay, gray, marly, soft, glauconitic

²⁰⁰
~~150-190~~ Sand, predominantly glauconitic with abundant clay

MATTAPONI FORMATION (200-275')

~~190-265~~ Sand, glauconite and quartz, fine grained, subangular abundant
 200 clay in part

265-275 Clay, pink glauconitic, calcareous

PATUXENT FORMATION (275-342')

~~275-285~~ Sand, quartz, fine to medium grained, angular, dirty, abundant pink clay

285-300 Clay, red to pink, sandy, soft

300-320 Sand, quartz, white, fine grained, angular with abundant clay

320-330 As above but clean

330-342 Sand, quartz, white, medium grained, dirty

GEOLOGIC SUMMARY

Miocene	Chesapeake Gp.	? - 70
Eocene	Pamunkey Gp.	70 - 190
Paleo-Cret	Mattaponi Fm.	190 - T. D.

R. N. Trefhe
3/8/72

VIRGINIA DIVISION OF MINERAL RESOURCES
 William Dudley

50 - 87	<i>Calvert Formation</i>	November 1958	<i>Miocene</i>
87 - 200	<i>Nanjemoy Formation</i>		<i>Eocene</i>
200 - 275	<i>Mattaponi Formation</i>		<i>Paleocene - Late Cretaceous</i>
275 - 342	<i>Patuxent Formation</i>		<i>Early Cretaceous</i>

OWNER: ? @ Cumberland Wharf
DRILLER: ?
COUNTY: New Kent

W#: 228
C#: 10
TOTAL DEPTH: 342'
QUAD.: New Kent

GEOLOGIC LOG

Depth
(feet)

- 0-50 No sample.
- 50-70 Sand — light olive gray; moderate clay (some clasts); medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; 30% rotten sandy limestone and shell fragments; 15% glauconite (green, black); some pyrite; forams (inc. Robulus and Buccella); few spines; few gypsum crystals.
- 70-90 Sand — very light olive gray; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; 7% glauconite (black, green); some shell fragments; forams abundant (inc. Discorbis, Buccella, Robulus, Quinqueloculina, and Pyrulina); ostracodes common; some pyrite; some spines.
- 90-110 Sand — light olive gray; slightly clayey; medium grained, some coarse grains; subrounded to rounded; well sorted; quartz; 20% glauconite (black, green); 20% shell fragments; forams abundant (inc. Quinqueloculina, Robulus, Textularia, Buccella, Discorbis, Nonion, and Cibicides ?); ostracodes common; some spines; pyrite.
- 110-130 Sand and coquina — light olive gray; slightly clayey; medium grained; subrounded to rounded; well sorted; 25% shell fragments; 20% glauconite (black, brown, green); quartz; 20% forams (inc. Quinqueloculina, Buccella, Dentalina, Discorbis, Robulus, Bolivina, Triqueloculina ?, Globigerina, Cibicides, Lagena, Bulimina, Guttulina, and Globulina ?); ostracodes abundant; some spines; few black phosphatic fragments; pyrite.
- 130-150 Sand — dark greenish gray; slightly clayey; medium grained; rounded; well sorted; 70% glauconite (black, green); 15% shell fragments; quartz; forams abundant (inc. Buccella, Robulus, Quinqueloculina, Discorbis, Dentalina, Globigerina, and Nodosaria); ostracodes common; some spines; pyrite; muscovite.
- 150-170 Sand — dark greenish gray; slightly clayey; medium to coarse grained; rounded; moderately well sorted; 80% glauconite (black, green); quartz; 5% shell fragments; forams (inc. Buccella, Robulus, and Discorbis); pyrite.
- 170-190 Sand — dark greenish gray; slightly clayey; medium grained, some fine grains, some coarse grains, rounded; moderately well sorted; 70% glauconite (black, brown, green); quartz; some shell fragments.

Depth
(feet)

- 190-200 As 170-190 except 60% glauconite.
- 200-215 Sand — dark greenish gray; slightly clayey; fine to medium grained; subangular to rounded; well sorted; quartz (some stained green); 45% glauconite (black, green, brown); some shell fragments; muscovite.
- 215-255 As above except 55% glauconite; forams (inc. Robulus and Buccella).
- 225-235 As above except 60% glauconite; forams (inc. Robulus and Bolivina).
- 235-250 As above except no forams.
- 250-265 Sand — dark greenish gray; slightly clayey-grayish orange and dark yellowish orange (clasts), olive light gray; fine to medium grained; subangular to rounded; moderately well sorted; 70% glauconite; quartz; few shell fragments.
- 265-275 As above except moderate clay — light reddish brown, grayish orange (clasts), olive light gray.
- 275-285 Sand — off white; moderate clay-light reddish brown, pale grayish yellow (clasts); medium to coarse grained, some fine grains; subangular to subrounded; moderately sorted; quartz; feldspar; 5% glauconite; some shell fragments; forams scarce (inc. Dentalina and Robulus).
- 285-300 Clay and sand — light reddish brown; abundant clay (clasts); moderate sand; fine to medium grained, some coarse grains; subangular to subrounded; moderately sorted; quartz; feldspar; 5% glauconite; muscovite; few shell fragments.
- 300-310 Sand — white; slightly clayey (clasts); fine to medium grained; subangular to subrounded; well sorted; quartz; feldspar; muscovite; few grains of glauconite.
- 310-320 Sand — off white; slightly clayey; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; feldspar; 3% glauconite; muscovite.
- 320-330 Sand — white; medium to coarse grained, some fine grains; subangular to subrounded; moderately well sorted; quartz; feldspar; muscovite; some glauconite; few shell fragments.
- 330-342 Sand — off white; slightly clayey (some clasts); coarse to very coarse grained, some fine grains, some medium grains; subangular to subrounded; moderately sorted; quartz; feldspar; muscovite.

VDMR Well No. 0228

Loc: Cumberland Wharf

New Kent Co.

<u>Interval</u>	<u>Description</u>
50-70	<p>MIocene CHESAPEAKE GROUP clay, gray, marly, glauconitic, pyritic, with shell fragments</p> <p>EOCENE PAMUNKEY GROUP</p>
70-110	sand, quartz, very fine grained, angular, argillaceous, slightly glauconitic
110-130	predominantly finely pulverized shell fragments with abundant sand and foraminifera
130-150	clay, gray, marly, soft, glauconitic
150-190	sand, predominantly glauconite with abundant clay
190-265	<p>PALEOCENE-UPPER CRETACEOUS MATTAPONI FM sand, glauconite and quartz, fine grained, subangular abundant clay in part</p>
265-275	clay, pink, glauconitic, calcareous
275-285	sand, quartz, fine to medium grained, angular, dirty, abundant pink clay
285-300	clay, red to pink, sandy, soft
300-320	sand, quartz, white, fine grained, angular with abundant clay
320-330	as above but clean
330-342	sand, quartz, white, medium grained, dirty

SUMMARY

Miocene	Chesapeake Gp.	?-70
Eocene	Pamunkey Gp.	70-190
Paleo-Cret	Mattaponi Fm.	190-T.D.