

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-4251
C- 169

MAILING ADDRESS:
B 3667
C Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, COMMISSIONER
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: James L. Parrish Ltd. Mailing Address: Williamsburg, Virginia

TENANT: "Jamestown 1607" Well #1 Mailing Address: _____

DRILLER: Douglas Drilling Co., Inc. Mailing Address: Box 498, Warsaw, Va. 22572

WELL LOCATION: County James City Approx. 0.5 ^{feet} miles NE (direction) of
intersection Rts. 31 and 614 and 900 ^{feet} ~~miles~~ NW (direction) of Route 31

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: _____ DATE COMPLETED: 27 February 1974

TYPE OF DRILL RIG USED: rotary TOTAL DEPTH 414 feet

WATER LEVEL: Stands 65 feet below surface OR
has NATURAL flow of - gallons per minute.

YIELD TEST: Method Air
Drawdown 65 feet
Rate 230 gal. per min.
Duration 4 hrs., _____ min.

HOLE SIZE: 10 3/4 inches from 0 to 54 feet
8 3/8 inches from 54 to 240 feet
5 7/8 inches from 240 to 414 feet

WATER ZONES: from _____ to _____ feet
from _____ to _____ feet
from 377 to 407 feet

SCREEN SIZE: _____ inches from _____ to _____ feet
#30SU 3 inches from 377 to 397 feet
#25SU 2 1/2 inches from 397 to 407 feet
CASE SIZE: 6 inches from 0 to 240 feet
WEIGHT
STANDARD 3 inches from 266 to 377 feet
SCHEDULE
40 3 inches from 407 to 414 feet

WATER: Color _____ Taste _____
Odor _____ Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Subdivision X

GROUTING: Method tremmie pipe
Material neat cement Depth 54 feet

WATER ANALYSIS AVAILABLE: Yes _____ No X
41

PUMP: Type permanent pump
Capacity _____ gal per min
Depth of intake _____ feet

DRILL CUTTINGS SAVED: Yes X No _____

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: This is a Class II-B Well of materials and construction as per specifications of Virginia Health Department publication "Drilled Wells for Public Water Supply" dated 9 Feb. 1970 and per Norfolk VHD approval letter dated 28 Dec. 1973. Copies of this report sent to addresses noted on reverse side. Drill Cutting Samples await normal State pickup at our office.

(LOG OF WELL) OVER

LOG

FURNISHED BY: _____ DATE: _____

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	Approx. 20	Fine sand and medium sands with varying % brown clay binder	
20	85	Fine sand with gray clay binder	
85	105	Fine and medium sands with some gray clay binder	
105	150	Fine sand with gray clay binder	
150	210	Fine sand with decreasing % gray clay binder and shell trace	
210	230	Fine sand with increasing % gray clay binder	
230	250	Fine sand with red clay binder	
250	275	Fine and medium sands with some gray clay binder	
275	315	Fine medium and coarse sands with some gray clay binder	
315	325	Fine sand with clay binder	
325	370	Fine sand with varying % medium and coarse sands with varying % gray clay binder	
370	414	Fine and coarse sands with small varying % gray clay binder. Screen	
	414	Fine sand with clay binder at end	

(Use additional forms if necessary)

VIRGINIA DIVISION OF MINERAL RESOURCES
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

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Well Repository No.: ~~XX~~ W-4251

Date rec'd: 7/18/74 Date Processed: 9/5/75

Sample Interval: from 0 to: 410'

PROPERTY: J. L. Parrish Ltd.
 (Jamestown 16007 "Well #1)

Number of samples: 40

COMPANY: Douglas

Total Depth:

COUNTY: James City

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
0 -10	308-318	-	-
10 -21	318-328	-	-
21 -31	328-338	-	-
31 -41	338-349	-	-
41 -51	349-359	-	-
51 -62	359-369	-	-
62 -72	369-379	-	-
72 -82	379-390	-	-
82 -92	390-400	-	-
92 -103	400-410	-	-
103 -113	-	-	-
113 -123	-	-	-
123 -133	-	-	-
133 -144	-	-	-
144 -154	-	-	-
154 -164	-	-	-
164 -174	-	-	-
174 -185	-	-	-
185 -195	-	-	-
195 -205	-	-	-
205 -215	-	-	-
215 -226	-	-	-
226 -236	-	-	-
236 -246	-	-	-
246 -256	-	-	-
256 -267	-	-	-
267 -277	-	-	-
277 -287	-	-	-
287 -297	-	-	-
297 -308	-	-	-

Both have washed and unwashed samples.

OWNER: James L. Parrish, Ltd.
("Jamestown 1607", Well #1)
DRILLER: Douglas Drilling Co., Inc.
COUNTY: James City

VDMR: #4251
WWCR: # 169
TOTAL DEPTH: 414'

GEOLOGIC LOG

Depth
(feet)

NORFOLK Formation (0-103')

- 0-10 Sand - tan; clayey, feldspathic; fine; poor to moderate sorting; angular; trace glauconite and muscovite.
- 10-21 As above with trace amphibole.
- 21-31 Clay - gray; sandy, silty; trace muscovite; interbedded silty, clayey, fine sand layers.
- 31-41 Sand - tan; clayey; very fine to medium; poor sorting; angular; minor sandy clay.
- 41-51 Clay - gray; sandy to silty; muscovite common; fine to coarse, angular sand.
- 51-62 As above, sand feldspathic with minor biotite.
- 62-72 Silt - gray; clayey, sandy; minor wood fragments; fine to medium, angular, feldspathic sand with abundant muscovite and trace amphibole.
- 72-82 Sand - gray; silty, clayey; very fine to fine; poor sorting angular; feldspathic; trace glauconite, muscovite, garnet, and apatite.
- 82-92 Sand - tan; clayey, feldspathic; medium to coarse; poor to moderate sorting; subrounded; trace glauconite, amphibole and muscovite.
- 92-103 As above with trace apatite.

CALVERT FORMATION (103-174')

- 103-113 Clay - gray; silty, minor sand; trace glauconite.
- 113-123 Clay - gray; silty, minor sand; rare shell fragments.

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#4251

Depth
(feet)

- 123-133 Clay - greenish gray; silty, sandy; trace glauconite; rare shell fragments; sharks teeth.
- 133-144 Clay - greenish gray; silty, sandy; trace glauconite; common shell fragments; forams (Nonion, Siphogenerina, Uvigerina cf. calvertensis).
- 144-154 Sand - greenish gray; clayey; fine to medium; moderate sorting; angular to subangular; trace glauconite; shell fragments common; forams (Discorbis sp.).
- 154-164 As above with abundant shell fragments, echinoid spines, and Cibicides sp.
- 164-174 Sand - greenish gray; clayey; pyrite; fine to coarse; poor sorting; angular to subrounded; common weathered glauconite; shell fragments abundant.

NANJEMOY FORMATION (174-236')

- 174-185 Limestone - tan; sandy; glauconitic, 25%; shell fragments; forams; sand interbeds.
- 185-195 Sand - dark greenish gray; clayey; glauconite, 50%; fine to medium; moderate sorting; subrounded; shell fragments rare.
- 195-205 Sand - dark greenish gray; clayey; glauconite, 50-60%; fine to medium; moderate sorting; subrounded; shell fragments rare; forams (Bulimina, Dentalina).
- 205-215 Sand - dark greenish gray; clayey; glauconite, 85%; fine to medium; moderate sorting; subrounded; shell fragments rare.
- 215-226 Clay - greenish gray; glauconitic, 90%; ostracodes; forams (Lagena cf. tenuis).
- 226-236 Clay - pink; glauconite, 10-20%.

MATTAPONI FORMATION (236-267')

- 236-246 Sand - dark greenish gray; clayey; glauconite, 90%; fine; moderate sorting; subrounded; about 10% gray glauconitic clay.

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Depth
(feet)

246-256 Sand - dark greenish gray; clayey; glauconite, 90%; fine; moderate sorting; subrounded.

256-267 As above with 95% glauconite.

PATUXENT FORMATION (267-414')

267-277 Sand - light gray; minor clay; feldspathic; glauconite, 15-20%; coarse; moderate sorting; subangular to subrounded; rounded quartz pebbles; garnet.

277-287 As above, glauconite 1-3%.

287-297 Sand - light gray; minor clay; feldspathic; glauconite, 1-3%; medium to coarse; moderate sorting; subrounded; rounded quartz pebbles; garnet; trace pyrite.

297-308 Sand - light gray; moderate to abundant clay; feldspathic; glauconite, 3-5%; medium to coarse; moderate to poor; subrounded; rounded quartz pebbles; siltstone fragments; muscovite.

308-318 As above with garnet, no muscovite or siltstone.

318-328 Sand - light gray; moderate clay; feldspathic, glauconite trace; fine to coarse; poor sorting; subrounded; trace garnet and muscovite; rounded quartz pebbles; siltstone fragments.

328-338 As above

338-349 As 318' to 328'.

349-359 As 318' to 328' with glauconite 1 to 3%.

359-369 As 349' to 359'.

369-379 As 349' to 359'.

379-390 As 318' to 328' with glauconite 3 to 5% and without siltstone fragments.

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(feet)

390-400 As 318' to 328' with glauconite 1 to 3% and without muscovite.
400-410 As 318' to 328' with glauconite 1 to 3% and without garnet.
410-414 No sample.

GEOLOGIC SUMMARY

Thickness
(feet)

Rock Unit

Time Rock Unit

103	Norfolk Formation	Pleistocene
71	Calvert Formation	Miocene-Eocene
62	Nanjemoy Formation	Eocene
31	Mattaponi Formation	Eocene-Cretaceous
147	Patuxent Formation	Cretaceous

Virginia Division of Mineral Resources
Eugene K. Rader
May 10, 1978