

142

Well: SSCF (Southampton State Correctional Farm)
 Property: State road right-of-way
 Driller: Froehling and Robertson
 Location: 0.2 mile E of Rte. 308, and 2.0 miles N of Rte. 58

Elevation: 42 feet
 Total Depth: 50 feet
 Started drilling: June 1968 Completed drilling: June 1968
 Sample description by: R. H. Teifke, Virginia Division of Mineral Resources, November 7, 1968

GEOLOGIC LOG

Depth in feet

0-3	No Sample
COLUMBIA GROUP (3-18')	
3-5	Sand — yellowish-brown, clean, 10% poorly rounded granule gravel; fine to very coarse, poorly sorted, angular to sub-angular; iron-stained; weathered feldspar common in coarser grades; traces of muscovite and epidote
5-8	No sample
8-10	Sand and Gravel — tan, clean; 35% fine (2-10 mm) gravel comprised of quartz, quartzitic and granitic rock fragments, and a few feldspars; 65% medium to very coarse, rather poorly sorted, angular sand; slightly feldspathic
10-13	No sample
13-15	Sand — light-gray, clean, with 10% carbonized plant fragments, 5% fine (2-10 mm) gravel; fine to coarse, rather poorly sorted; moderately feldspathic
15-18	No sample
YORKTOWN FORMATION (18-25')	
18-20	Shell and Sand — light-gray, moderately clayey, locally a calcitic fossiliferous sandstone; 40% shell material, mostly pelecypods, with a few bryozoans, gastropods, echinoid spines, and corals; 40% fine to medium, fairly well-sorted, angular to subangular quartz sand with minor amount of black shell fragments and traces of glauconite and garnet; foraminifers rare
20-23	No sample
23-25	Sand and Shell — dark greenish-gray, slightly clayey; 75% medium, fairly well-sorted, subangular to subrounded clear to green-

Depth in feet

		tinted quartz, sand, with minor amount of black shell fragments; 20% pelecypod shells and shell fragments, and a few scaphopods and gastropods; a very few foraminifera
25-28		No sample
	MATTAPONI FORMATION (25-39')	
28-30		Sand — greenish-gray, slightly clayey, a few small pebbles and phosphonite nodules, 10% pelecypod shells and a few scaphopods; fine, well-sorted, angular; clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phosphorite, and minor magnetite; foraminifera and echinoid spines rare
30-33		No sample
33-35		Sand — dark-greenish-gray, a few decomposed pelecypod shells; fine, well-sorted, angular, clear clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phosphorite, and minor magnetite; foraminifera and edinooid spines rare
35-38		No sample
	TRANS. BEDS (37-39')	
38-39		Sand — dark grayish-green, slightly clayey, 35% glauconite-pigmented quartzo-feldspathic coarse sand grading into granule gravel, and a few small, rounded pebbles up to 10 mm; 70% fine, well-sorted, angular sand composed of clear and greenish quartz with 10% glauconite; phosphorite fragments and pellets common; minor garnet and coarse muscovite
	PATUXENT FORMATION (39-40')	
39-40		Sand — tan, very slightly clayey, trace of granule gravel; medium to coarse, moderately sorted; subangular to subrounded; abundant intensely decomposed (yellowish) feldspar; coarse muscovite common; minor glauconite in fine fraction
40-43		No sample
	PATUXENT FORMATION (43-50')	
43-45		Sand — tan, trace of clay; coarse to very coarse, well-sorted, subangular to subrounded; moderately feldspathic; coarse muscovite common
45-48		No sample
48-50		Sand — gray, slightly clayey; coarse, fairly well-sorted, subangular; moderately feldspathic, abundant coarse muscovite

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-3	No sample	
3-15	Columbia Group	Pleistocene
15-18	No sample	
18-25	Yorktown Formation	Late Miocene
25-28	No sample	
28-39	MaHaponi Formation	Paleocene
39-40	Tuscaloosa or Patuxent Formations	Late Cretaceous or
40-43	No sample	Early Cretaceous
43-50	Patuxent Formation	Early Cretaceous

MaHaponi

cretaceous

OWNER: St. Road Rt-Of-Way
DRILLER: Froehling & Robertson
COUNTY: Sussex (Homeville)

W # 2207
TOTAL DEPTH - 140'
QUAD. - Littleton

DEPTH (FEET)	WELL LOG
0-3	No sample.
3-5	Sand - light brown (5YR 5/6); moderate clay; very fine to very coarse with some granules, subangular, moderate sorting; mica.
5-8	No sample.
8-10	Sand - grayish orange (10YR 7/4); medium, subangular well sorted; mica 8% very fine phosphatic fragments.
10-13	No sample.
13-15	Sand - dark yellowish orange (10YR 6/6); moderate clay; very fine to medium, subangular; moderately well sorted; 3% weathered glauconite; echinoderm spines; mica; color banding in clay; graphite.
15-18	No sample.
18-20	Sand - pinkish gray (5YR 8/1); medium, subangular, well sorted; 3% very fine phosphatic fragments; biotite; muscovite; feldspar.
20-23	No sample.
23-25	Sand - pinkish gray (5YR 8/1); coarse, subangular, well sorted; 5% fine phosphate and weathered glauconite fragments; rose, smokey and amethyst quartz.
25-28	No samples.
28-30	Sand - yellowish gray (5Y 7/2); very fine to granule, subangular, poorly sorted; 5% phosphatic material; rose, smokey quartz; flat iron oxide fragments.
30-33	No sample.
33-40	Gravel - dark orange pink (5YR 8/4); sparse clay; fine to granule, angular to subrounded, poor sorting; rose and smokey quartz.
40-43	No sample.
43-45	Sand, Shelly - light and dark gray; 50% shell fragments; fine to coarse, subangular, moderate sorting; 35% glauconite; shell fragments - weathered; <u>Mulinia</u> ; barnacles; <u>Lucinid</u> , oysters, pectens, bryozoa.

DEPTH (FEET)	WELL LOG
45-48	No sample.
48-65	Coquina, Broken - light and dark gray; fine to coarse, subangular and subrounded, moderately sorted; 70%+ shell fragments - many with calcium carbonate crystalization on surfaces; some weathered and reworked; echinoiderm spines and plates; bryozoa; coral at 53-55'; ostracods at 63-65'; phosphate fragments at 63-65'.
65-68	No sample.
68-70	Sand - light olive gray (5Y 6/1); fine to coarse, subangular, moderate sorting; 3% fine phosphate fragments; 25% shell fragments; echinoiderm spines; bryozoa.
70-73	No sample.
73-75	Sand - light olive gray (5Y 6/1); medium, subangular, well sorted; 10% fine phosphatic fragments/glaucinite; 8% fine shell fragments; forams - <u>Nonion</u> , <u>Textularia</u> , <u>Robulus</u> , <u>Eponides</u> ; ostracods; shark tooth; 5% mica.
75-88	No sample.
88-95	Sand - olive gray (5Y 4/1); moderate clay; fine to coarse, subangular, moderate sorting; 10% fine glauconite; 20% forams - <u>Nonion ssp.</u> , <u>Eponides</u> , <u>Pyrulina</u> ; diatoms - reworked?; ostracods; bone fragments; 10% shell fragments 93-95'; 10% mica.
95-98	No sample.
98-100	Sand - olive gray (5Y 4/1); sparse clay; fine to coarse, subangular, moderate sorting; 3% glauconite; 15% shell fragments; 8% forams - as at 88-95'; ostracods; diatoms - reworked?; bone fragments; mica.
100-103	No samples.
103-120	Sand - light and dark gray; fine and medium, subangular, well sorted; glauconite - 30% at 103-110', 15% at 113-115', 35% at 118-120' very sparse clay at 103-110'; 3% shell fragments at 103-105'; forams; phosphate fragments at 113-120'; mica at 103-115'.

Logged By:

J. K. Polzin
March 1981

Well: SSCP (Southampton State Correctional Farm)
 Property: State road right-of-way
 Driller: Froehling and Robertson
 Location: 0.2 mile E of Rte. 735, and 2.0 miles N of Rte. 58

Elevation: 42 feet
 Total Depth: 50 feet
 Started drilling: June 1968 Completed drilling: June 1968
 Sample description by: R. H. Teifke, Virginia Division of Mineral Resources, November 7, 1968

GEOLOGIC LOG

Depth in feet

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5-8	No sample
8-10	Sand and Gravel — tan, clean; 35% fine (2-10 mm) gravel comprised of quartz, quartzitic and granitic rock fragments, and a few feldspars; 65% medium to very coarse, rather poorly sorted, angular sand; slightly feldspathic
10-13	No sample
13-15	Sand — light-gray, clean, with 10% carbonized plant fragments, 5% fine (2-10 mm) gravel; fine to coarse, rather poorly sorted; moderately feldspathic
15-18	No sample
YORKTOWN FORMATION (18-25')	
18-20	Shell and Sand — light-gray, moderately clayey, locally a calcitic fossiliferous sandstone; 40% shell material, mostly pelecypods, with a few bryozoans, gastropods, echinoid spines, and corals; 40% fine to medium, fairly well-sorted, angular to subangular quartz sand with minor amount of black shell fragments and traces of glauconite and garnet; foraminifers rare
20-23	No sample
23-25	Sand and Shell — dark greenish-gray, slightly clayey; 75% medium, fairly well-sorted, subangular to subrounded clear to green-

Depth in feet

		tinted quartz, sand, with minor amount of black shell fragments; 20% pelecypod shells and shell fragments, and a few scaphopods and gastropods; a very few foraminifera
25-28		No sample
MATTAPONI FORMATION (25-39')		
28-30		Sand — greenish-gray, slightly clayey, a few small pebbles and phosphonite nodules, 10% pelecypod shells and a few scaphopods; fine, well-sorted, angular; clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phosphorite, and minor magnetite; foraminifera and echinoid spines rare
30-33		No sample
33-35		Sand — dark-greenish-gray, a few decomposed pelecypod shells; fine, well-sorted, angular; clear and green-tinted quartz, with 5-10% combined fragmental glauconite and phosphorite, and minor magnetite; foraminifera and echinoid spines rare
35-38		No sample
TRANS. BEDS (37-39')		
38-39		Sand — dark grayish-green, slightly clayey, 35% glauconite-pigmented quartzo-feldspathic coarse sand grading into granule gravel, and a few small, rounded pebbles up to 10 mm; 70% fine, well-sorted, angular sand composed of clear and greenish quartz with 10% glauconite; phosphorite fragments and pellets common; minor garnet and coarse muscovite
PATUXENT FORMATION (39-40')		
39-40		Sand — tan, very slightly clayey, trace of granule gravel; medium to coarse, moderately sorted; subangular to subrounded; abundant intensely decomposed (yellowish) feldspar; coarse muscovite common; minor glauconite in fine fraction
40-43		No sample
PATUXENT FORMATION (43-50')		
43-45		Sand — tan, trace of clay; coarse to very coarse, well-sorted, subangular to subrounded; moderately feldspathic; coarse muscovite common
45-48		No sample
48-50		Sand — gray, slightly clayey; coarse, fairly well-sorted, subangular; moderately feldspathic, abundant coarse muscovite

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-3	No sample	
3-15	Columbia Group	Pleistocene
15-18	No sample	
18-25	Yorktown Formation	Late Miocene
25-28	No sample	
28-39	Mattaponi Formation	Paleocene
39-40	Tuscaloosa or Patuxent Formations	Late Cretaceous or
40-43	No sample	Early Cretaceous
43-50	Patuxent Formation	Early Cretaceous

OWNER: St. Road Rt-Of-Way
DRILLER: Froehling & Robertson
COUNTY: Sussex (Homeville)

W # 2207
TOTAL DEPTH - 140'
QUAD. - Littleton

DEPTH
(FEET)

WELL LOG

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8-10	Sand - grayish orange (10YR 7/4); medium, subangular, well sorted; mica 8% very fine phosphatic fragments.
10-13	No sample.
13-15	Sand - dark yellowish orange (10YR 6/6); moderate clay; very fine to medium, subangular; moderately well sorted; 3% weathered glauconite; echinoderm spines; mica; color banding in clay; graphite.
15-18	No sample.
18-20	Sand - pinkish gray (5YR 8/1); medium, subangular, well sorted; 3% very fine phosphatic fragments; biotite; muscovite; feldspar.
20-23	No sample.
23-25	Sand - pinkish gray (5YR 8/1); coarse, subangular, well sorted; 5% fine phosphate and weathered glauconite fragments; rose, smokey and amethyst quartz.
25-28	No samples.
28-30	Sand - yellowish gray (5Y 7/2); very fine to granule, subangular, poorly sorted; 5% phosphatic material; rose, smokey quartz; flat iron oxide fragments.
30-33	No sample.
33-40	Gravel - dark orange pink (5YR 8/4); sparse clay; fine to granule, angular to subrounded, poor sorting; rose and smokey quartz.
40-43	No sample.
43-45	Sand, Shelly - light and dark gray; 50% shell fragments; fine to coarse, subangular, moderate sorting; 35% glauconite; shell fragments - weathered; <u>Mulinia</u> ; barnacles; <u>Lucinid</u> , oysters, pectens, bryozoa.

DEPTH
(FEET)

WELL LOG

- 45-48 No sample.
- 48-65 Coquina, Broken - light and dark gray; fine to coarse, subangular and subrounded, moderately sorted; 70%+ shell fragments - many with calcium carbonate crystalization on surfaces; some weathered and reworked; echinoiderm spines and plates; bryozoa; coral at 53-55'; ostracods at 63-65'; phosphate fragments at 63-65'.
- 65-68 No sample.
- 68-70 Sand - light olive gray (5Y 6/1); fine to coarse, subangular, moderate sorting; 3% fine phosphate fragments; 25% shell fragments; echinoiderm; echinoderm spines; bryozoa.
- 70-73 No sample.
- 73-75 Sand - light olive gray (5Y 6/1); medium, subangular, well sorted; 10% fine phosphatic fragments/glaucinite; 8% fine shell fragments; forams - Nonion, Textularia, Robulus, Eponides; ostracods; shark tooth; 5% mica.
- 75-88 No sample.
- 88-95 Sand - olive gray (5Y 4/1); moderate clay; fine to coarse, subangular, moderate sorting; 10% fine glauconite; 20% forams - Nonion ssp., Eponides, Pyrulina; diatoms - reworked?; ostracods; bone fragments; 10% shell fragments 93-95'; 10% mica.
- 95-98 No sample.
- 98-100 Sand - olive gray (5Y 4/1); sparse clay; fine to coarse, subangular, moderate sorting; 3% glauconite; 15% shell fragments; 8% forams - as at 88-95'; ostracods; diatoms - reworked?; bone fragments; mica.
- 100-103 No samples.
- 103-120 Sand - light and dark gray; fine and medium, subangular, well sorted; glauconite - 30% at 103-110', 15% at 113-115', 35% at 118-120' very sparse clay at 103-110'; 3% shell fragments at 103-105'; forams; phosphate fragments at 113-120'; mica at 103-115'.

Logged By:

J. K. Polzin
March 1981

County : Southampton

VOME Well No. 2207

Well : 5SCF (Southampton State Conventional Form.)

Property : State road right-of-way

Driller : Froehling and Robertson

Location : 0.2 miles E of Rte 308, and 2.0 miles N of Rte. 58

Elevation : 42 feet

Total Depth : 50 feet

Started drilling : June 1968

Completed drilling : June 1968

Sample description by : R. H. Teitke, Virginia Division of
Mineral Resources, November 7, 1968

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-15	Columbia Group	Pleistocene
15-18	No sample	—
18-25	Yorktown Formation	Late Miocene
25-28	No sample	—
28-39	Mattaponi Formation	Paleocene
39-50	Petuxent Formation	Early Cretaceous

County : Southampton

WELL No. 2207

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (2³-15')

0-3

No sample

3-5

Sand - yellowish-brown, clean, 10% poorly rounded granule gravel; fine to very coarse, poorly sorted, angular to sub-angular; iron-stained; weathered feldspar common in coarser grades; traces of muscovite and epidote

5-8

No sample

8-10

Sand and Gravel - tan, clean; 35% fine (2-10 mm) gravel composed of quartz, quartzitic and granitic rock fragments, and a few feldspar; 65% medium to very coarse, rather poorly sorted, angular sand; slightly feldspathic

10-13

No sample

13-15

Sand - light-gray, clean, with 10% carbonized plant fragments; 5% fine (2-10 mm) gravel; fine to coarse, rather poorly sorted; moderately feldspathic

15-18

No sample

YORKTOWN FORMATION (18-25')

18-20

Shell and Sand - light-gray, moderately calcareous, fossiliferous sandstone
clayey; 50% shell material, mostly pelecypods, with a few bryozoans, sponges, and corals; 30% fine to medium, fairly well-

sorted, angular to subangular quartz sand
with minor amount of black shell fragments
and traces of glauconite and garnet; for-
aminifers rare

20-23

No sample

23-25

Sand and shell - dark greenish-gray, slightly
clayey; ^{75%} 75% medium, fairly well-sorted,
subangular to subrounded clear to green-
tinged quartz sand, with minor amount of
black shell fragments; 20% pelecypod
shells and shell fragments, and a few
scaphopods and gastropods; a very few
foraminifers

25-28

No sample

MATTAPONI FORMATION (28-39)

28-30

Sand - greenish-gray, slightly clayey, a
few small pebbles and phosphite nodules,
10% pelecypod shells ^{and a few scaphopods}; fine, well-sorted,
angular; clear and green-tinged quartz,
with 5-10% combined fragmental glauconite
and phosphite, and minor magnetite;
foraminifers and echinoid spines rare

30-32

No sample

32-35

Sand - dark greenish-gray, a few decomposed
pelecypod shells; fine, well-sorted, angu-
lar; clear and green-tinged quartz,
with 5-10% combined fragmental glauco-
nite and phosphite, and minor mag-
netite; foraminifers and echinoid spines
rare

35-38

No sample

38-39

Sand - dark grayish-green, slightly clayey,
35% glauconite-pigmented quartzo-feld-
spathic ^{coarse sand grading into} granule gravel, and a few
small, rounded pebbles up to 40 mm;
70% fine ~~quartz~~, well-sorted,
angular sand composed of clear and
greenish quartz, with 10% glauconite;
phosphate fragments and pellets common;
minor garnet and coarse muscovite

mm

Either Upper Cretaceous

FUSCALOSA OR PATUXENT FORMATION (39-40')

39-40

Sand - tan, very slightly clayey, trace
of granule gravel; medium to coarse, moder-
ately sorted; subangular to subrounded;
abundant intensely decomposed (yellowish)
feldspar; coarse muscovite common;
minor glauconite in fine fraction

40-43

No sample

PATUXENT FORMATION (43-50')

43-45

Sand - tan, trace of clay; coarse to
very coarse, well-sorted, subangular
to subrounded; moderately feldspathic;
coarse muscovite common.

45-48

No sample

48-50

Sand - gray, slightly clayey; coarse, fairly
well-sorted, subangular; moderately
feldspathic, abundant coarse muscovite

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-3	No sample	
3-15	Columbia Group	Pleistocene
15-18	No sample	_____
18-25	Yorktown Formation	Late Miocene
25-28	No sample	_____
28-39	Mattaponi Formation	Paleocene
39-40	Upper Cretaceous Patuxent or Patuxent Formations	Late Cretaceous or Early Cretaceous
40-43	No sample	
43-50	Patuxent Formation	Early Cretaceous

