

OWNER: Contractors, Inc.
U. S. Army, Building 1109
DRILLER: Sydnor Pump & Well Co., Inc.
COUNTY: Prince George (Petersburg)

VDMR #970
WWCR #154
TOTAL DEPTH: 302'

GEOLOGIC LOG

- 0-10 Sand and Clay — light-brown, coarse- to fine-grained, angular to rounded, no sorting; fragments of weathered granite, quartz, feldspar, sericite and clay, one fragment road material (black top).
- 10-20 Sand and Clay — tan, coarse-grained, angular, no sorting, quartz, feldspar, minor muscovite, hornblende, minor rounded quartz sand.
- 20-30 As above — less sericite and clay.
- 30-40 As above.
- 40-45 As above.
- 45-50 Sand and Clay — medium-gray, coarse-grained, angular, no sorting, quartz, feldspar, minor garnet, epidote, and glauconite.
- 50-60 Sand — very light-gray and very light-brown, coarse, sub-angular, minor feldspar, muscovite, garnet, and clay.
- 60-70 As above.
- 70-80 Gravel and Sand — light-gray, fine pebble to medium sand, angular to subrounded, quartz, feldspar, minor garnet, glauconite, clay, and limonite.
- 80-90 Sand — light-gray, coarse-to-fine, angular to subangular, quartz, minor feldspar, garnet, clay, and glauconite.
- 90-100 Sand and Gravel — light-gray, granules to fine sand, quartz, minor feldspar, garnet, glauconite and clay.
- 100-110 As above — with minor limonite.
- 100-120 As above — less limonite, few fragments gray rhyolite.
- 120-127 Gravel — light-tan and light-gray, 3 to 8 mm, angular to sub-rounded, quartz, feldspar, minor clay; rhyolite fragments.
- 130-137'6" As above — slightly coarser.

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- 139 Gravel — light-tan and light-gray, 3 to 8 mm, more angular to subrounded, quartz, feldspar, minor clay; rhyolite fragments.
- 139-147 Sand - Gravel — tan and medium-gray, minor white, 7 mm pebbles to medium sand, angular to subrounded, quartz, quartzite, feldspar, and rhyolite.
- 147-160 Sand, Gravel, and Clay — very light-gray, fine pebbles (up to 8 mm) to medium sand, angular, quartz, minor feldspar, very minor muscovite; rhyolite.
- 160-170 As above — slightly finer, maximum 6 mm.
- 171 Gravel and Sand — buff, fine pebbles to fine sand, angular to subrounded, quartz, feldspar, minor clay, garnet and muscovite, rhyolite; largest fragments are very angular and may be large pebbles broken by drilling.
- 170-180 Gravel, Sand, and Clay — buff to light-gray, coarse-to-fine, subangular, quartz, minor feldspar, very minor muscovite, rhyolite.
- 180-190 As above.
- 190-200 As above.
- 200 Gravel — buff and gray, coarse, quartz, minor feldspar, clay; rhyolite.
- 200-210 Gravel, Sand, and Clay — very light-gray, fine pebbles to medium sand, subangular, quartz, minor feldspar, and rhyolite.
- 210-220 As above.
- 227 Gravel — buff, gray and white, fine pebbles (5-10 mm), angular to subrounded, clean quartz, feldspar, rhyolite.
- 220-230 As above — with medium sand, sericite and clay.
- 230-240 As above — with angular fragments of coarse pebbles.
- 240-250 As above — more clay, some ferruginous material.

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- 250-260 Gravel and Clay — purple-brown, gray and white, fine pebbles (up to 10 mm) to medium sand in ferruginous variegated clay, minor rhyolite pebbles; partially indurated when dry.
- 263-267 As above — less red clay, more sand pebbles (up to 15 mm), porous.
- 273-280 Gravel, Sand, and Clay — very light-gray, slightly purple, subangular to subrounded, fine pebbles to medium sand in gray and ferruginous clays.
- 280-290 Sandy Clay — medium red-brown; clay, ferruginous with 50% coarse, angular to subrounded sand; quartz, feldspar, relicts, quartzite, rhyolites; partially indurated when dry.
- 290-300 As above — lighter color, more sand.
- 300-302 No sample.

GEOLOGIC SUMMARY

| | <u>ROCK UNIT</u> | <u>TIME ROCK UNIT</u> |
|---------|------------------|-----------------------|
| 0-300 | Patuxent | Cretaceous |
| 300-302 | No sample | |

The material in these samples does not indicate the time degree or rounding or the size of the gravels. The larger pebbles and/or cobbles have been broken into angular fragments by the drill.

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
December 9, 1964