

Table 2—Selected physical properties and geotechnical evaluation of surface materials of the Culpeper basin and vicinity.

Table with 10 columns: Material, Description, Physical Properties, Engineering Properties, Geotechnical Evaluation, and Remarks. Rows include Artificial fill, Alluvium, Upland gravel deposits, Mountain wash, and various soil types like Siltstone, Sandstone, and Shale.

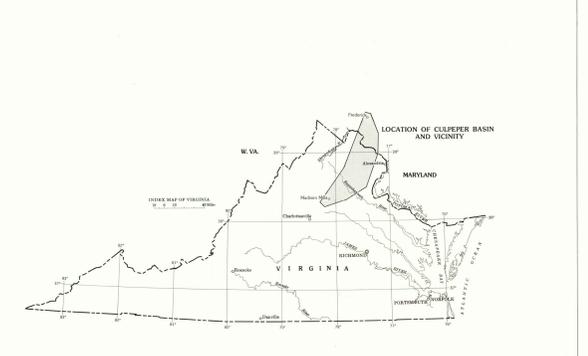
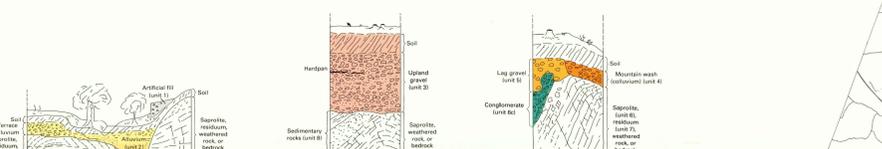


Figure 1—Geological map of the Culpeper basin and vicinity, Virginia and Maryland. Shows various geological units and their distribution across the region.

THE CULPEPER BASIN FLOOR
The Culpeper basin is a broad, gently sloping, subsiding and tectonic... The basin floor is a broad, gently sloping, subsiding and tectonic...



REFERENCES CITED
Aronson, R. B., 1970. The geology of the Culpeper basin and vicinity, Virginia. U.S. Geological Survey Open-File Report 70-36, 148 p.

Figure 3—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

INTRODUCTION
Surface materials (unconsolidated) in this map are unconsolidated... This map shows the distribution and geotechnical properties of surface materials in the Culpeper basin and vicinity.

Figure 4—Chart showing relative consolidation or compression for overconsolidated materials. Similar to Figure 3, but with a different y-axis scale.

CONSTITUENTS
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

EXPLANATION
ARTIFICIAL FILL: Homogeneous mixture of soil, weathered and...
ALLUVIUM: Clay, silt, sand, and gravel...
UPLAND GRAVEL DEPOSITS: Gravel, sand, and silt...
MOUNTAIN WASH COLLUVIAL DEPOSITS: Shale, siltstone, and sandstone...
SOILS: Various soil types including Siltstone, Sandstone, and Shale.

Figure 5—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 6—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 7—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 8—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 9—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
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Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 10—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
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Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 11—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 12—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 13—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 14—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
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Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 15—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 16—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

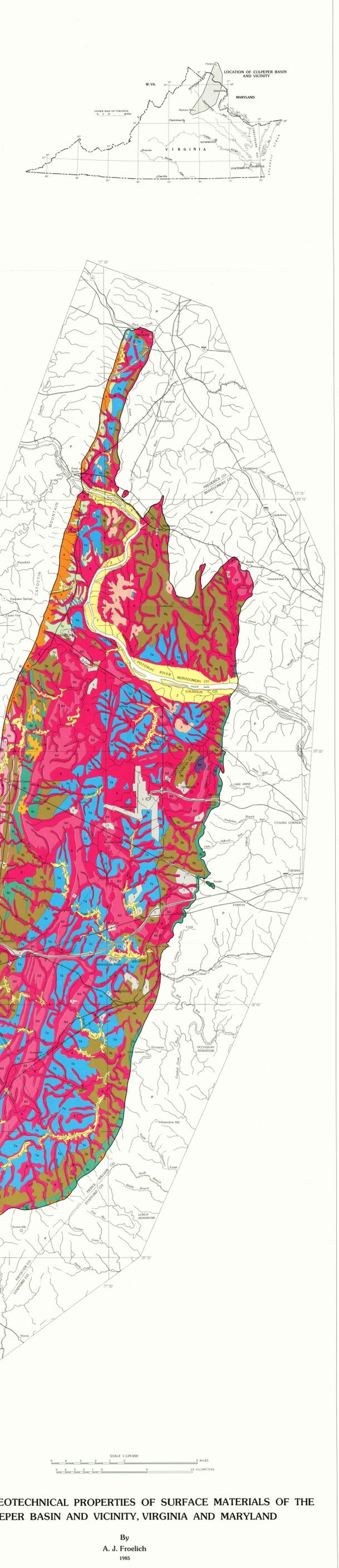
CONSTITUENTS (continued)
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Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 17—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
Very soft: Easily penetrated under index by thumb
Medium: Can be penetrated under index by thumb with moderate effort
Stiff: Readily indented by thumb but penetrated only with great effort
Very stiff: Readily indented by thumb
Hard: Indented with difficulty by thumbnail

Figure 18—Chart showing relative consolidation or compression for overconsolidated materials. The chart plots Slope angle (degrees) on the x-axis and Relative consolidation/compression on the y-axis.

CONSTITUENTS (continued)
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Hard: Indented with difficulty by thumbnail



MAP AND GEOTECHNICAL PROPERTIES OF SURFACE MATERIALS OF THE CULPEPER BASIN AND VICINITY, VIRGINIA AND MARYLAND

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1985