**PHYSIOGRAPHY**

The Missouri portion of the Grafton 7.5' quadrangle includes part of the large floodplain between the Missouri and Mississippi rivers. The floodplain is greater than nine miles wide in this area with approximately six miles on the quadrangle. The quadrangle lies within the Dissected Till Plains Section of the Central Lowland Province of the United States. The floodplain is shelf like in appearance, bounded by the Missouri and Mississippi rivers. The approximate upper 15 feet of these deposits are composed predominantly of silt with variable amounts of clay, sand and organic material. The material resulting below the clay is predominantly used for the topsoil. In the Missouri portion of the map in St. Charles County, the thickness of this unit reaches 120 feet between the large rivers. The water table is approximately 15 feet below ground surface, resulting in an interval of saturated sand greater than 100 feet thick. This unit is included in the cross sections as Quaternary alluvium. The thickness of this unit reaches 120 feet between the large rivers. The water table is approximately 15 feet below ground surface, resulting in an interval of saturated sand greater than 100 feet thick. This unit is included in the cross sections as Quaternary alluvium.

**DESCRIPTION OF MAP UNITS**

**ARTIFICIAL FILL** – This unit comprises artificially emplaced fill material and is composed of a mixture of heterogeneous clay, silt, sand and gravel in various quantities. This unit may reach 40 feet in total thickness and comprises the material for highways and sidewalks, and waste water treatment facility fill. This artificial fill has typically been placed on unfractured materials.

**QUATERNARY CLAY-CAPPED ALLUVIUM** – This unit has been deposited by the Missouri and Mississippi rivers. The approximate upper 15 feet of these deposits are composed predominantly of silt with variable amounts of clay, sand and organic material. The material resulting below the silt is predominantly used for the topsoil. In the Missouri portion of the map in St. Charles County, the thickness of this unit reaches 120 feet between the large rivers. The water table is approximately 15 feet below ground surface, resulting in an interval of saturated sand greater than 100 feet thick. This unit is included in the cross sections as Quaternary alluvium.

**QUATERNARY SILT-CAPPED ALLUVIUM** – This unit has been deposited by the Missouri and Mississippi rivers. The approximate upper 15 feet of these deposits are composed predominantly of silt with variable amounts of clay, sand and organic material. The material resulting below the silt is predominantly used for the topsoil. In the Missouri portion of the map in St. Charles County, the thickness of this unit reaches 120 feet between the large rivers. The water table is approximately 15 feet below ground surface, resulting in an interval of saturated sand greater than 100 feet thick. This unit is included in the cross sections as Quaternary alluvium.

**QUATERNARY ALLUVIAL SAND** – This unit comprises artificially emplaced fill material and is composed of a mixture of heterogeneous clay, silt, sand and gravel in various quantities. This unit may reach 40 feet in total thickness and comprises the material for highways and sidewalks, and waste water treatment facility fill. This artificial fill has typically been placed on unfractured materials.

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