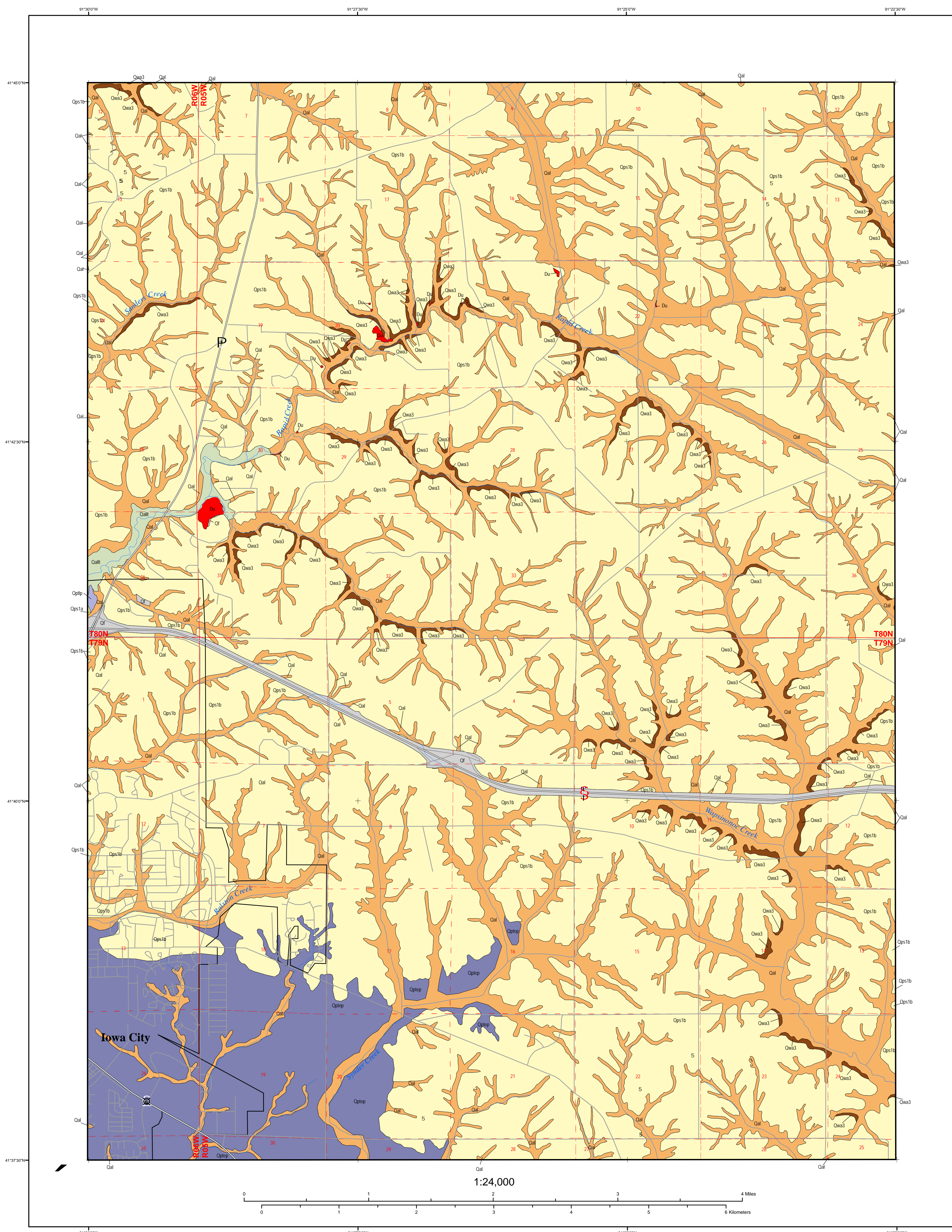


Surficial Geologic Materials of the Iowa City East 7.5' Quadrangle



SURFICIAL GEOLOGIC MATERIALS OF THE IOWA CITY EAST 7.5' QUADRANGLE, JOHNSON COUNTY, IOWA

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LEGEND

Description of Map Units

HUDSON EPISODE

Qal - Alluvium (De Forest Formation-Undifferentiated) One to seven meters of massive to weakly stratified, grayish brown to brown loam, silt loam, clay loam, or loamy sand overlying less than three meters of poorly to moderately well sorted, massive to moderately well stratified, coarse to fine feldspathic quartz sand, pebbly sand, and gravel and more than three meters of pre-Wisconsin or late Wisconsin Noah Creek Formation sand and gravel. Unit also includes colluvial deposits derived from adjacent map units. Seasonally high water tables occur in this map unit.

QalH - Iowa River Valley - Low Terrace (DeForest Formation-Camp Creek Mbr. and Roberts Creek Mbr.) Variable thickness of less than 1 meter to 5 meters of very dark gray to brown, noncalcareous, stratified silty clay loam, loam, or clay loam, associated with the Holocene channel belt of the Iowa River valley. Overlies Noah Creek Formation. Ox-bow lakes and meander scars are common features associated with this terrace level. Post-settlement alluvium thickness varies from 5 meters in higher areas to 2 meters along the river course and in lower lying areas. Seasonal high water table and frequent flooding potential.

WISCONSIN EPISODE

Qp1b - Late Phase High Terrace (LPHT) (Peoria Formation-silt and/or sand facies) Two to seven meters of yellowish brown to gray, massive, jointed, calcareous or noncalcareous, silt loam and intercalated fine to medium, well sorted, sand. Grades downward to poorly to moderately well sorted, moderately to well stratified, coarse to fine sand, loam, or silt loam alluvium.

Qp1e - Early Phase High Terrace (EPHT) (Peoria Formation-silt and/or sand facies) Two to seven meters of yellowish brown to gray, massive, jointed, calcareous or noncalcareous, silt loam and intercalated fine to medium, well sorted, sand. The Peoria deposits overlie a Farmdale Geosol developed in Roxanna Silt which in turn overlies a well-expressed Sangamon Geosol developed in poorly to moderately well sorted, moderately to well stratified, coarse to fine sand, loam, or silt loam alluvium.

Qp1 - Loess and Intercalated Eolian Sand (Peoria Formation-silt facies) Two to five meters of yellowish brown to gray, massive, fractured, noncalcareous grading downward to calcareous silt loam and intercalated fine to medium, well sorted, sand. Sand is most abundant in lower part of the collan package. Overlies massive, fractured, loamy glacial till of the Wolf Creek or Albion Formations with or without intervening clayey Farmdale-Sangamon Geosol.

Qp1b - Thick Loess and Intercalated Eolian Sand (Peoria Formation-silt facies) Five to fifteen meters of yellowish brown to gray, massive, noncalcareous grading downward to calcareous silt loam and intercalated fine to medium, well sorted, sand. Minimum thickness of five meters on uplands. Maximum thickness of two to seven meters of loess occurs on adjacent slopes. Overlies massive, fractured, loamy glacial till of the Wolf Creek or Albion Formations with or without intervening clayey Farmdale-Sangamon Geosol.

PRE-ILLINOIAN EPISODE

Qwa3 - Till (Wolf Creek or Albion Formations) Generally 10 to 35 meters of very dense, massive, fractured, loamy glacial till of the Wolf Creek or Albion Formations with or without a thin loess mantle (Peoria Formation—less than 2 meters) and intervening clayey Farmdale-Sangamon Geosol. This mapping unit encompasses narrowly dissected interfluvial and side slopes, and side valley slopes. Drainage is variable from well drained to poorly drained.

PALEOZOIC

Du - Fractured Devonian Carbonate Bedrock Interbedded limestones and dolostones primarily of the Cedar Valley Group and minor areas of the Wapsipicon Group. Locally developed as bedrock aquifer.

Qp1 - Pits and Quarries Sand and gravel pits and rock quarries.

Qf - Fill Areas of cut and fill associated with railroad grades, major highways, airports, retail and industrial developments. Deposits within this map unit are similar to those in adjacent map units but may have significant mantles of fill or deep cuts that expose underlying deposits.

Water Features Rivers, lakes and small ponds formed by blockage of drainageways and river channels.

Drilling Sites

