DESCRIPTION OF MAP UNITS

water water (Holocene)—water

Primarily alluvial deposits

Qal Alluvium (Holocene)—Sand, gravel, and silt to clay alluvial deposits in active channels and floodplains and in low-terrace deposits along major rivers

Qat1 Younger alluvial terraces (Holocene to late Pleistocene)—Commonly gravel and sand in deposits on alluvial terraces, but locally includes thin beds of silt and minor lacustrine deposits. Also includes extensive deposits of the paleo Platte River buried by loess in the rainwater basin region, and less commonly, in paleochannel fill beneath glacial till

Qat2 Older alluvial terraces (Pleistocene)—Commonly gravel and sand deposited on alluvial terraces

QTa Very old alluvium (Pleistocene to Pliocene)—Gravel and coarse sand with minor alluvial silt and lacustrine deposits

Eolian deposits

Qes Eolian sand (Holocene to late Pleistocene)—Eolian sands, undifferentiated morphologically

Eolian sand, sand sheet and dunes

Qes-sv Eolian sand, sand sheet and very low relief dunes (Holocene to late Pleistocene)—Eolian sands, consisting of sand sheet, very low relief morphologies

Qes-sm Eolian sand, sand sheet and moderate relief dunes (Holocene to late Pleistocene)—Eolian sands, consisting of sand sheet, moderate relief morphologies

Qes-l Eolian sand, linear dunes (Holocene to late Pleistocene)—Eolian sands, consisting of linear morphologies

Eolian sand, dome-like dunes

Qes-dcc Eolian sand, dome-like compound and complex dunes (Holocene to late Pleistocene)—Eolian sands, consisting of dome-like, compound and complex morphologies

Qes-dsc Eolian sand, dome-like simple and complex dunes (Holocene to late Pleistocene)—Eolian sands, consisting of dome-like, simple and complex morphologies

Qes-dr Eolian sand, domal-ridge dunes (Holocene to late Pleistocene)—Eolian sands, consisting of domal-ridge morphologies

Qes-p Eolian sand, parabolic dunes (Holocene to late Pleistocene)—Eolian sands, consisting of parabolic morphologies

Eolian sand, barchan dunes

Qes-cbc Eolian sand, close-spaced barchan dunes (Holocene to late Pleistocene)—Eolian sands, consisting of close-spaced, crescentic barchan morphologies

Qes-cbi Eolian sand, intermediate-spaced barchan dunes (Holocene to late Pleistocene)—Eolian sands, consisting of intermediate-spaced, crescentic barchan morphologies

Qes-cbw Eolian sand, wide-spaced barchan dunes (Holocene to late Pleistocene)—Eolian sands, consisting of wide-spaced, crescentic barchan morphologies

Qes-cbb Eolian sand, barchanoid-ridge barchan dunes (Holocene to late Pleistocene)—Eolian sands, consisting of barchanoid-ridge, crescentic barchan morphologies

Ql Loess (Holocene to middle Pleistocene)—Silt and sandy silt primarily comprised of quartz grains deposited by wind. Widespread Peoria Loess (Wisconsinan) with: (1) local Bignell Loess (Holocene), particularly adjacent to dunefields and sand sheets in central and western Nebraska; and/or (2) local exposures of Loveland Loess (Illinoisan), typically in lower slope positions, especially in parts of eastern, central and southern Nebraska

Qles Loess and eolian sands (Holocene to middle Pleistocene)—Eolian sediments consisting of distinct pockets of both loess and sand. Sands are overlying loess deposits in places. Loess is primarily Peoria Loess

Glacial deposits

Qt Pre-Illinoisan till covered by thin Wisconinan loess (Holocene to early Pleistocene)—Loess overlying Illinoian and Pre-Illinoian alluvial and lucustrine sand and Pre-Illinoian clay loam till. Locally with intervening Illinoisan loess or other sediments

Pre-Quaternary bedrock and residuum, colluvium, and other minor mantling deposits

Qca Colluvium and alluvium (Quaternary)—Alluvial and colluvial deposits of sand, silt, and minor gravel primarily derived from upper Eocene to Pliocene sediments. Principally located on broad valley slopes in the western portion of the state

T Upper Eocene to Pliocene sediments and bedrock (Pliocene to late Eocene)—Undivided Tertiary bedrock of the Broadwater Fm and the Arikaree, Ogallala, and White River Groups

Tb Broadwater Formation (Pliocene)—Sedimentary rocks of the Broadwater Formation. Primarily pebble to cobble gravel and sand. Locally includes minor silt, clay, and diatomite beds

To Ogallala Group (late and middle Miocene)—Sedimentary rocks of the Ogallala Group. Primarily fluvial deposits that commonly fill paleovalleys

Ta Arikaree Group (early Miocene and late Oligocene)—Sedimentary rocks of the Arikaree Group. Primarily fluvial and eolian volcaniclastic sediments

Twr White River Group (early Oligocene and late Eocene)—Sedimntary rocks of the White River Group. Primarily fluvial and eolian volcaniclastic sediments generally finer grained than those of Arikaree Group

K Cretaceous bedrock, undifferentiated (Cretaceous)—Residuum and colluvium on Carlile, Dakota, Greenhorn-Graneros, Niobrara, and Pierre Fms. The northwest panhandle units consist dominantly of residuum on upper Cretaceous smectitic shales with smaller areas of Quaternary alluvium and colluvium derived from weathered shale. The northeast units near the confluence of the Niobrara and Platte rivers consist dominantly of residuum and colluvium on upper Cretaceous smectitic shales with localized areas of thin Neogene and Quaternary fluvial and eolian sands and loess. The southern units along the Republican River consist of residuum of the Carlile and Niobrara formations, while the units along the Little Blue River consist of residuum of the Dakota and Greenhorn-Graneros formations overlain by Peoria and other loess deposits of varying thicknesses

\*P Pennsylvanian and Permian bedrock, undifferentiated (Late Pennsylvanian to Cisuralian)—Sedimentary rocks of the Pennsylvanian Shawnee and Wabaunsee Groups and Permian Admire, Chase, and Council Grove groups. Primarily limestone and shale