

Detailed Surficial Geologic Map of the Southern Piedmont of the Toroflita Mountains, Pima County, Arizona

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EXPLANATION

Map Symbols

-  contact between alluvial units; dashed where uncertain
-  contact between alluvium and bedrock
-  limit of mapping(?)

Map Unit Descriptions

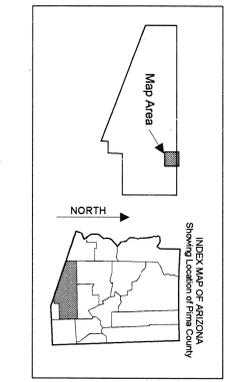
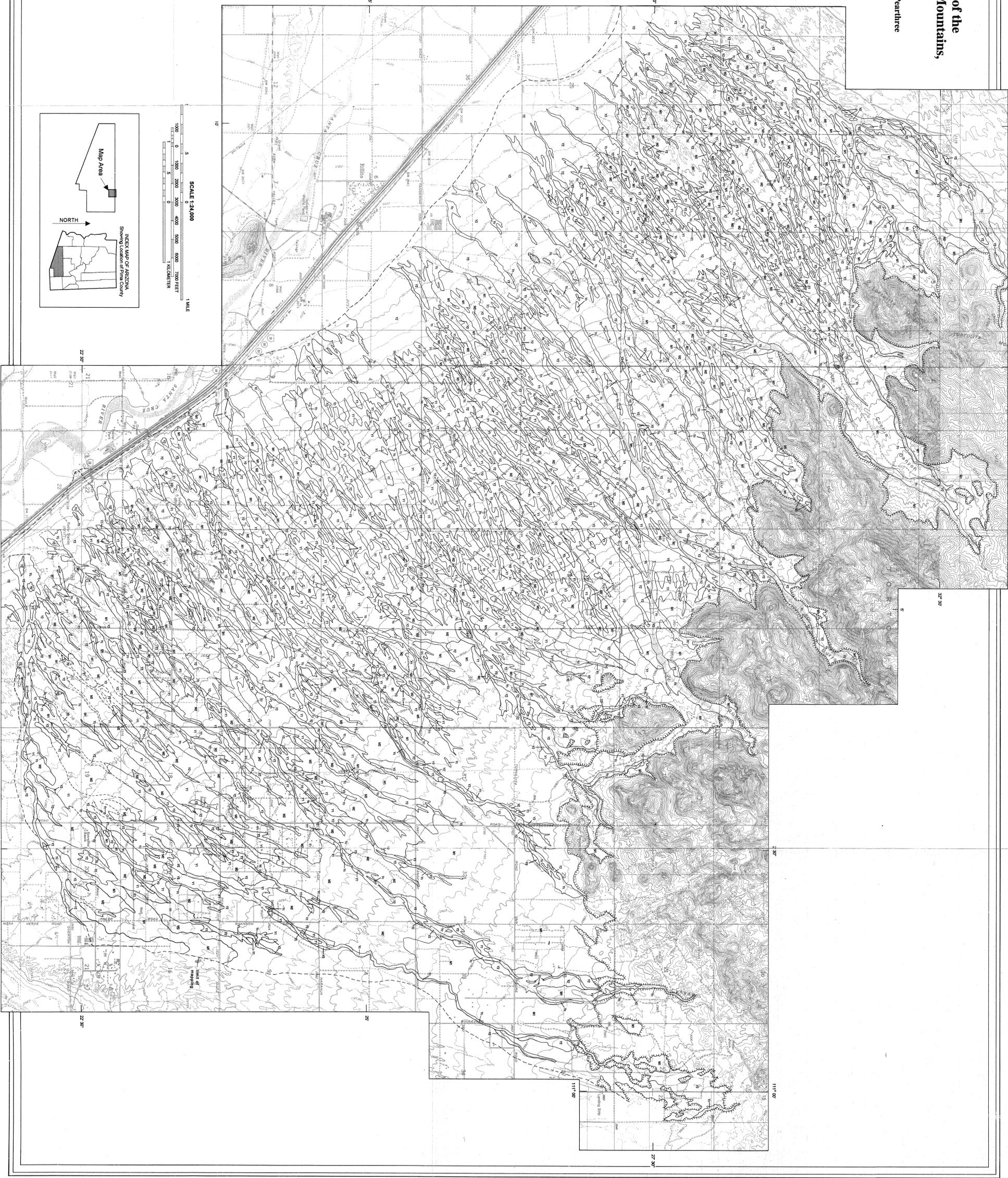
Yc. Modern (0 to 100 years)
This unit is composed of active channels, deposits of well-sorted sand and silt sand, near the mountains. Deposits are typically light-colored, reflecting the color of the sand and gravel particles transported by streams. This unit is characterized by the absence of soil development; fine details of depositional stratigraphy are well preserved. Surfaces common. These areas are subject to frequent inundation.

Y2. Late Holocene (0 to 5,000 years)
This unit is composed of low stream terraces, young alluvial fan surfaces, and small channels. Deposits are well-sorted sand and silt sand, with lenses of coarse sand. Boulders are somewhat visible, ranging from small pebbles to 5 cm in diameter. Soil color (10YR 6/3). Original depositional topography is well preserved; surfaces are fairly depositional stratigraphy has been obscured by animal and plant activity. Soils typically consist of flammets or very thin, discontinuous carbonate coats on cists and cambic horizons with weak subangular blocky soil structure. Subsurface cambic horizons are horizons (sand to loam texture). Sediments of unit Y2 range in age from a few years to a few thousand years. Holocene (650 to 1,200 years old) artifacts have been found indicating that some Y2 surfaces are less than about 650 years old. Other Y2 surfaces are older than 650 years. Active channels typically are incised less than 1 m below Y2 surfaces and may be inundated during large floods.

Y1. Early Holocene to Latest Pleistocene (5,000 to 20,000 years)
This unit includes alluvial fan remnants and stream terraces that are geologically young but have been isolated from significant flooding and deposition for thousands of years. Found locally. Surfaces are generally quite plain, but edges of surfaces adjacent to channels have been rounded by erosion. Y1 surfaces typically are 1 to 2 m higher than adjacent channels and younger alluvial fans and terraces (units Yc and Y2). Surfaces are well-sorted sand and silt sand, with lenses of coarse sand. Boulders are somewhat visible, ranging from small pebbles to 5 cm in diameter. Soil color (10YR 6/3). Original depositional topography is well preserved; surfaces are fairly depositional stratigraphy has been obscured by animal and plant activity. Soils typically consist of flammets or very thin, discontinuous carbonate coats on cists and cambic horizons with weak subangular blocky soil structure. Subsurface cambic horizons are horizons (sand to loam texture). Sediments of unit Y1 range in age from a few years to a few thousand years. Holocene (650 to 1,200 years old) artifacts have been found indicating that some Y1 surfaces are less than about 650 years old. Other Y1 surfaces are older than 650 years. Active channels typically are incised less than 1 m below Y1 surfaces and may be inundated during large floods.

M2. Late Pleistocene (20,000 to 125,000 years)
This unit is composed of alluvial fan remnants and stream terraces that have been isolated from substantial deposition for at least 20,000 years. Deposits consist of well-sorted sand and silt sand, with lenses of coarse sand. Boulders are somewhat visible, ranging from small pebbles to 5 cm in diameter. Soil color (10YR 6/3). Original depositional topography is well preserved; surfaces are fairly depositional stratigraphy has been obscured by animal and plant activity. Soils typically consist of flammets or very thin, discontinuous carbonate coats on cists and cambic horizons with weak subangular blocky soil structure. Subsurface cambic horizons are horizons (sand to loam texture). Sediments of unit M2 range in age from a few years to a few thousand years. Holocene (650 to 1,200 years old) artifacts have been found indicating that some M2 surfaces are less than about 650 years old. Other M2 surfaces are older than 650 years. Active channels typically are incised less than 1 m below M2 surfaces and may be inundated during large floods.

M1. Middle Pleistocene (125,000 to 750,000 years)
This unit is composed of ancient, dissected alluvial fan remnants. Deposits consist of well-sorted sand and silt sand, with lenses of coarse sand. Boulders are somewhat visible, ranging from small pebbles to 5 cm in diameter. Soil color (10YR 6/3). Original depositional topography is well preserved; surfaces are fairly depositional stratigraphy has been obscured by animal and plant activity. Soils typically consist of flammets or very thin, discontinuous carbonate coats on cists and cambic horizons with weak subangular blocky soil structure. Subsurface cambic horizons are horizons (sand to loam texture). Sediments of unit M1 range in age from a few years to a few thousand years. Holocene (650 to 1,200 years old) artifacts have been found indicating that some M1 surfaces are less than about 650 years old. Other M1 surfaces are older than 650 years. Active channels typically are incised less than 1 m below M1 surfaces and may be inundated during large floods.



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