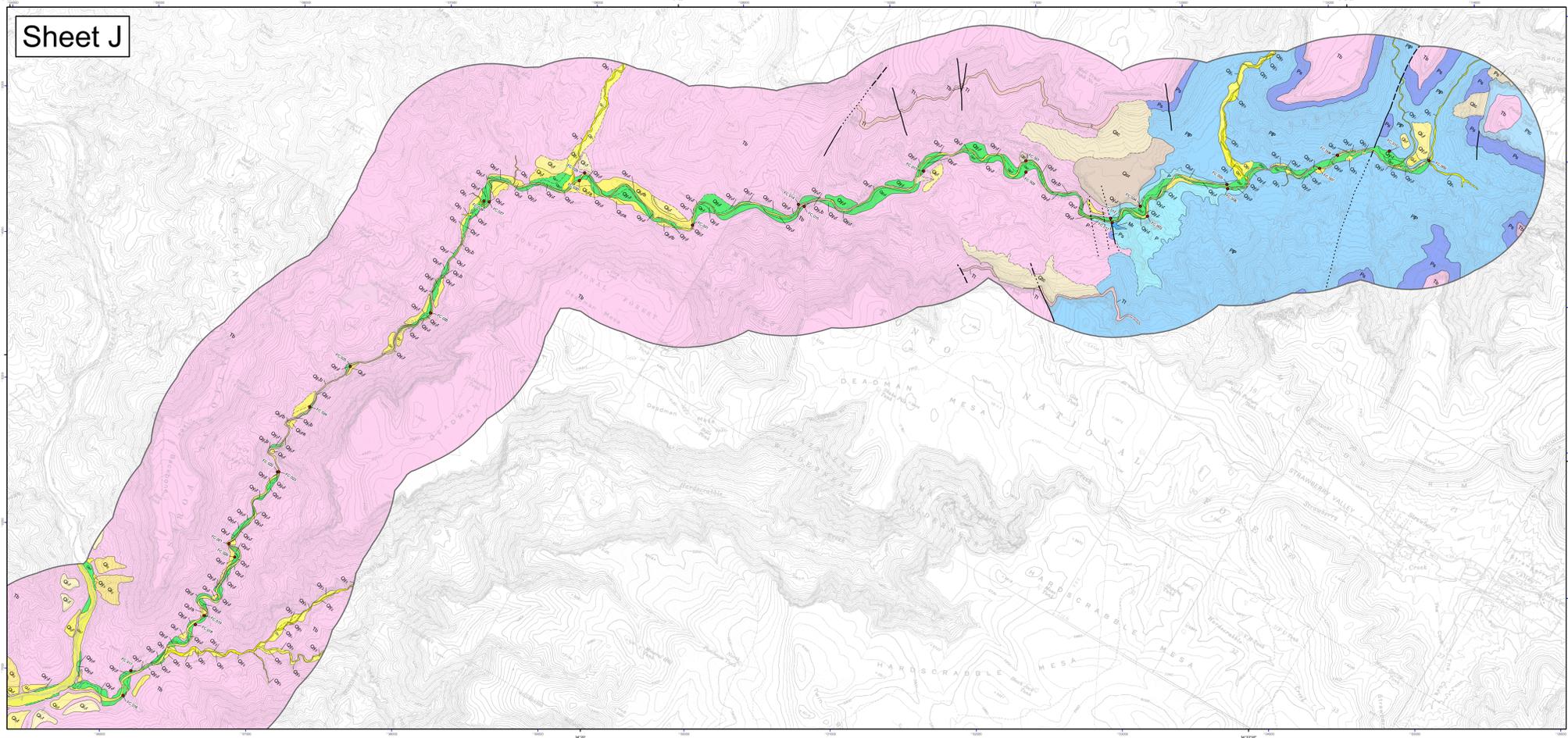


Sheet J



Map Unit Descriptions

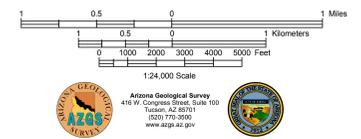
- Other units**
 - Qc** Quaternary hillslope talus and colluvium - unconsolidated to weakly consolidated, very poorly sorted sand, pebbles, and cobbles with some boulders to moderately sorted sand and pebbles.
 - Qvr** Active river channel deposits - unconsolidated, poorly to very poorly sorted sand to silt/clay deposits in active river channels. Deposits in narrow canyon reaches are very fine to discontinuous excepting underlying bedrock. Deposits are typically unvegetated to lightly vegetated and exhibit no soil development.
 - Qch** Bedrock lined river channel - portions of the active channel where flow passes directly over exposed bedrock. A discontinuous layer of pebbles to boulders may be present but smooth, polished bedrock lines the channel bottom.
 - Qf** Flood channel and low terrace deposits - unconsolidated sand, gravel, silt and clay deposits on low terraces and high levees within the modern floodplain.
 - Qhr** Historical river terrace deposits - unconsolidated, poorly sorted sand, gravel, silt and clay deposits on low terraces and high levees within the modern floodplain.
 - Qhl** Late Holocene to historical river terrace deposits - unconsolidated, poorly sorted silt, sand, clay and gravel deposits on terraces adjacent to the modern floodplain. Surfaces are typically planar with weak to moderate gravel lenses.
 - Qhe** Late to early Holocene river terrace deposits - unconsolidated, poorly sorted silt, sand, clay and gravel deposits on slightly higher terraces adjacent to the modern floodplain. Surfaces typically are planar with local gully development.
 - Qhm** Late Pleistocene river terrace deposits, younger member - gravely, sandy river terrace deposits up to 65 feet above the active river channel.
 - Qhm** Late Pleistocene river terrace deposits, older member - gravely, sandy river terrace deposits 15 to 65 feet above the active river channel. Deposits consist of well rounded pebbles to cobbles with cross-bedded coarse sandy interbeds. Clast lithologies are diverse.
 - Qm** Middle to late Pleistocene river terrace deposits, undivided - high standing, cobbly to sandy river terrace deposits exhibiting moderate to strong clay development and calcium carbonate accumulation.
 - Qm** Middle Pleistocene river terrace deposits, undivided - higher standing, cobbly to sandy river terrace deposits exhibiting strong to very strong clay development and calcium carbonate accumulation.
 - Qe** Early Pleistocene river terrace deposits, undivided - well rounded consolidated pebbles to cobbles river conglomerate.
- River Alluvium**
 - Qra** Modern stream channel deposits - active channel deposits composed of very poorly sorted sand, pebbles, and cobbles with some boulders to moderately sorted sand and pebbles.
 - Qrl** Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and overflow channel deposits.
 - Qrh** Late Holocene alluvium - planar terrace deposits located along incised drainage, trace low relief flat deposits originating onto Holocene river alluvium and infrequently active tributary drainage deposits.
 - Qro** Older Holocene alluvium - broad, low relief, undulating fan deposits exhibiting widespread, shallow drainage patterns.
 - Qri** Undivided deposits - unsorted sediment resulting from mass down-slope movement (Wuicke et al., 1987).
 - Qm** Late Pleistocene alluvial fan and terrace deposits - weakly consolidated sandy gravel terraces with moderate soil development.
 - Qm** Early to middle Pleistocene alluvial fan and terrace deposits - high, moderately consolidated gravelly deposits with strong soil development.
 - Qm** Early Pleistocene river terrace deposits, undivided - high, moderately consolidated gravelly deposits with strong soil development.
- Piedmont Alluvium**
 - Qp** Modern stream channel deposits - active channel deposits composed of very poorly sorted sand, pebbles, and cobbles with some boulders to moderately sorted sand and pebbles.
 - Qpl** Latest Holocene alluvium - unconsolidated, very poorly sorted silt to cobbly low terrace and overflow channel deposits.
 - Qph** Late Holocene alluvium - planar terrace deposits located along incised drainage, trace low relief flat deposits originating onto Holocene river alluvium and infrequently active tributary drainage deposits.
 - Qpo** Older Holocene alluvium - broad, low relief, undulating fan deposits exhibiting widespread, shallow drainage patterns.
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- Bedrock units**
 - Tb** Tertiary basalt, undivided - Tertiary basalt flows, associated older cones and pyroclastic rocks, intrusive basalts, and mafic rocks.
 - Tl** Tertiary tuff, undivided - fescic ash flow tuff, pumice, and siliceous flows.
 - Pc** Tapesa Sandstone - unsorted sediment resulting from mass down-slope movement (Wuicke et al., 1987).
 - Pf** Permian Sandstone - Permian and Upper Pennsylvanian mudstone, siltstone, sandstone, limestone and dolomite.
 - P** Permian sedimentary rocks, undivided - gray to tan, cherty limestone of the Kaibab and Tonopah Formations, and underlying units to the base of the Coconino Sandstone (Richard et al., 2000).
 - PP** Permian to Pennsylvanian Sedimentary rocks, undivided - interbedded sandstone, shale, and limestone of the Supai Group and Hermit Shale (Richard et al., 2000).
 - M** Redwall Limestone - Mississippian Redwall Limestone.

Bedrock and surficial geologic mapping for areas outside the lateral limits of Holocene river alluvium was compiled from the following sources

Cook, J.P., Pearthree, P.A., Onken, J., Youberg, A., Bigio, E.R., 2010. Mapping of Holocene River Alluvium along the Verde River, Central Arizona, 54 p., 10 sheets, scale 1:24,000.

Richard, S.M., Reynolds, S.J., Spencer, J.E., and Pearthree, P.A., comps., 2000. Geologic Map of Arizona: Arizona Geological Survey Map M-35, 1 sheet, scale 1:1,000,000.

Weir, G.W. and Beard, L.S., 1984. Geologic map of the Fossil Springs Roadless Area, Yavapai, Gila, and Coconino Counties, Arizona: U.S. Geological Survey Miscellaneous Field Studies Map MF-1568-C, 1 sheet, scale 1:24,000.

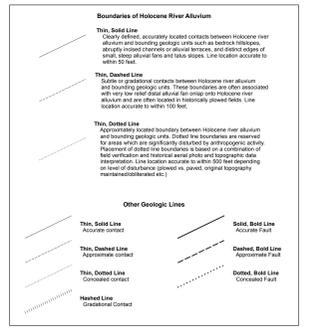


SURFICIAL GEOLOGIC MAP OF OAK CREEK, WET BEAVER CREEK, WEST CLEAR CREEK, FOSSIL CREEK, AND THE EAST VERDE RIVER, CENTRAL ARIZONA

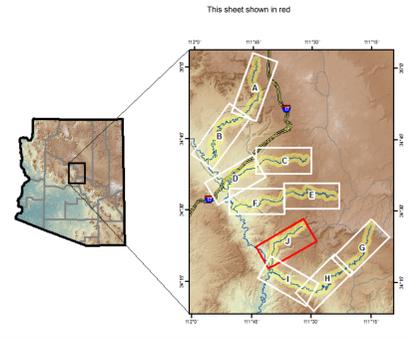
by Cook, J.P.
October 2010
Arizona Geological Survey
Digital Map DM-RM-3J
version 1.0

Funding for this project was provided by the Arizona Department of Water Resources

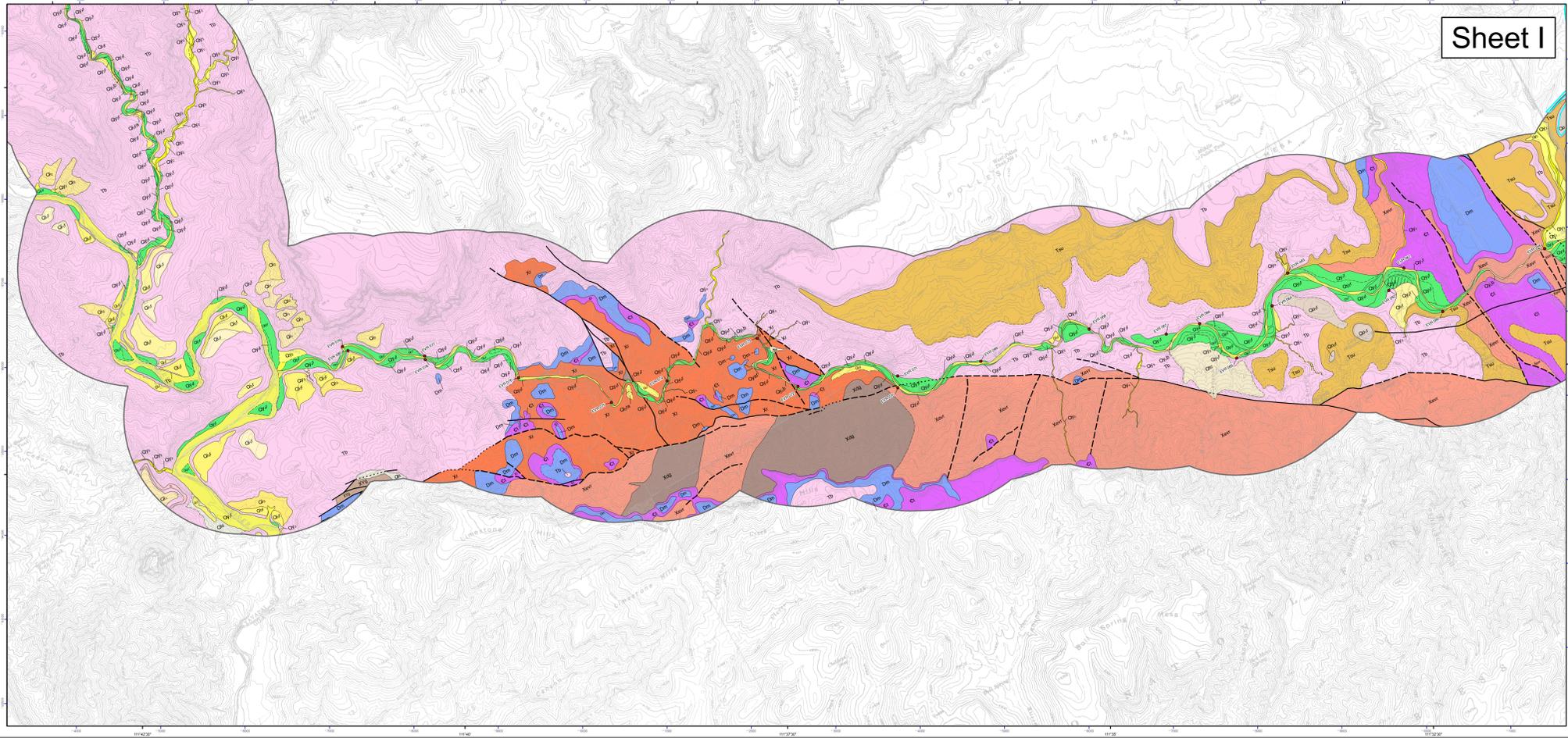
USGS 24k quadrangle series topographic base maps, North American Datum of 1983. Projection and 1000-meter grid ticks (blue); Universal Transverse Mercator, zone 12.



Location Map



Sheet I



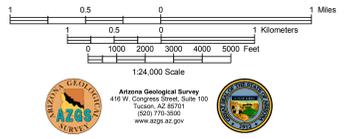
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 - M** Redwall Limestone - Mississippian Redwall Limestone.
 - Y** East Verde River Formation - interbedded siltstone, graywacke, shale, conglomerate, mafic rocks, and tuff (Richard and Conroy, 1987).
 - Yg** Proterozoic granite, undivided - fine to coarse grained granitoids, quartz monzonite, porphy, rhythmic ash flows, mylonite, and gneissogneiss.
 - Yd** Diorite and gabbro - early Proterozoic diorite and gabbro.
 - X** Proterozoic rhyolite, basalt, andesite, conglomerate, and ash flow tuffs, undivided - compiled from Wuicke and Conroy, 1987.

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Wuicke, C.T. and Conroy, C.M., 1987. Geologic map of the Mazatzal Wilderness and contiguous Roadless Area, Gila, Maricopa, and Yavapai Counties, Arizona: U.S. Geological Survey Open-File Report 87-0664, 22 p., 1 sheet, scale 1:48,000.

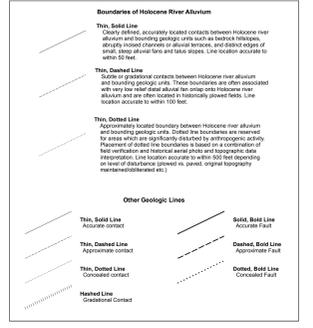


SURFICIAL GEOLOGIC MAP OF OAK CREEK, WET BEAVER CREEK, WEST CLEAR CREEK, FOSSIL CREEK, AND THE EAST VERDE RIVER, CENTRAL ARIZONA

by Cook, J.P.
October 2010
Arizona Geological Survey
Digital Map DM-RM-3I
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Funding for this project was provided by the Arizona Department of Water Resources

USGS 24k quadrangle series topographic base maps, North American Datum of 1983. Projection and 1000-meter grid ticks (blue); Universal Transverse Mercator, zone 12.



Location Map

