Siliciclastic Rock Identification Key Angular fragments Arkose Breccia > 2 mm (gravel) Hand Specimen: Pink or red common. Feldspar/quartz Arkose Rounded fragments Microscope: Wet the rock to dominate > 2 mm (gravel) Conglomerate see pink/white feldspar; find cleavage; quartz/mica common Fragments 1/16 Arkose to 2 mm SANDSTONE Angular fragments LITHIC Hand Specimen: Gray, green, > 2 mm (gravel) Breccia dark colors; "salt and pepper" Microscope: Wet the rock Rounded fragments LITHIC Lithics/quartz Darker lithics and quartz readily > 2 mm (gravel) Conglomerate dominate seen; feldspar/mica may be present; angular fragments Fragments 1/16 LITHIC to 2 mm SANDSTONE common. May be a matrix. Wacke Quartz Quartz gravel in silt/clay matrix Conglomerate Hand Specimen: White to tan common; many colors possible Sandy Quartz Quartz gravel Quartz gravel in Microscope: Wet the rock; quartz sand matrix Conglomerate and/or quartz largest visible grains mostly or sand dominate all quartz; other minerals rare Quartz 100% quartz sand or absent SANDSTONE Microscope: Wet WACKE the rock; > 50% sand in silt or clay SANDSTONE Microscope: Wet SANDY the rock; silt/clay Wacke with < 50% sand Hand Specimen: Many colors; Silt/clay may feel gritty, but sand grains Microscope: Wet common or the rock; feels not readily seen by eye dominates gritty but no sand SILTSTONE seen: scratches fingernail readily Microscope: Wet SHALE the rock; no particles visible L.S. Fichter, 1993, 2000

http://geollab.imu.edu/Fichter/SedRx/sedclass.html