

**GEOS 315 Sedimentology and Stratigraphy
Soils Lab**

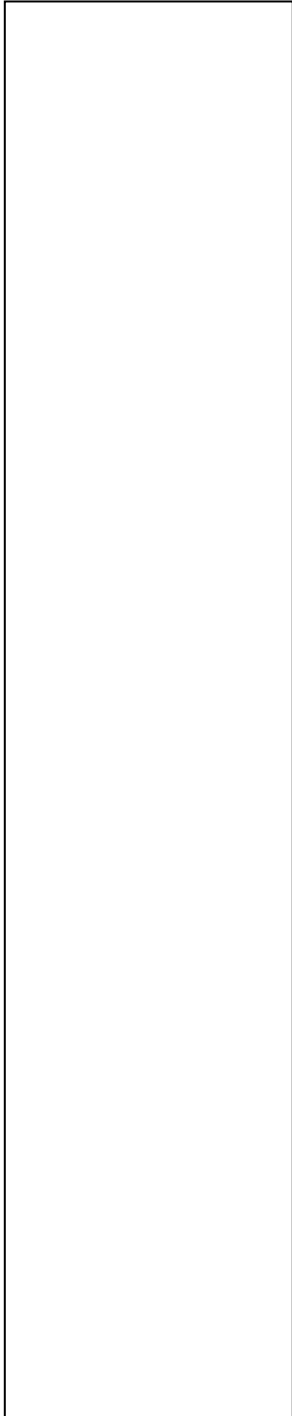
SOIL PROFILE 1 – MOORHEAD, MN (in front of Archeology Lab)

1. Construct a soil profiles based on samples you collect in the space below. In the description, include; color, sediment type, grain size, sorting, and composition.

Profile

Horizon

Description



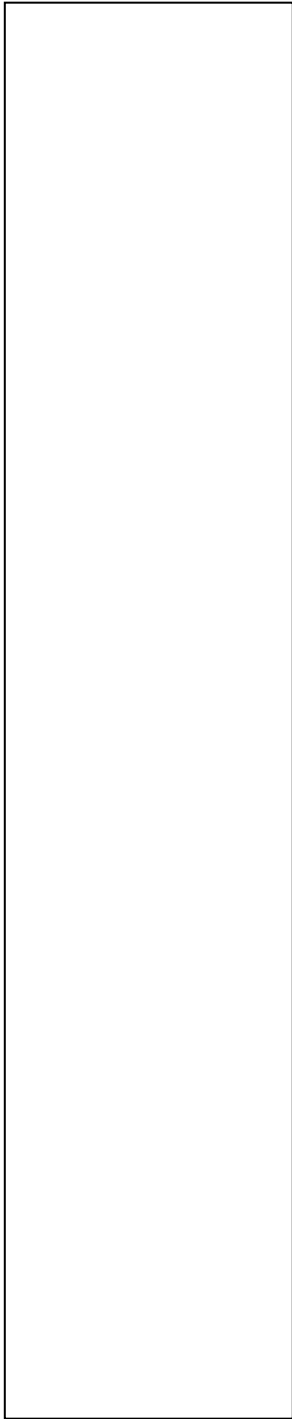
SOIL PROFILE 2 – HAWLEY, MN (in a sand pit)

2. Construct a soil profiles based on samples in the back of the room in the space below. In the description, include; color, sediment type, grain size, sorting, and composition.

Profile

Horizon

Description



Soil Classification

- Alfisols (Al + Fe) - moderate leaching, subsurface clay, hardwood forests (climate, organisms)
- Andisols (volcanic-ash) - volcanic ash parent (parent material)
- Aridosols (arid) - few organics - subsurface salts and caliche (climate)
- Entisols (recent) - poorly developed horizons, recent accumulation or constant erosion, floodplains, mountains, badlands (time, topography)
- Gelisols (permafrost) - weakly weathered (climate)
- Histosols (organic) - abundant organics (>25%), few minerals (topography)
- Inceptisols (young) - weakly developed horizons, little clay (time, climate)
- Mollisols (soft) - moderate leaching, organic topsoil, prairie soils (climate, organisms)
- Oxisols (oxide) - very old, extremely leached, tropics (time, climate)
- Spodosols (ashy) - cold, moist climates, well developed B, pine forests (parent, organisms, climate)
- Ultisols (leached) - subsurface clay, strongly leached, humid subtropical (climate, time, organisms)
- Vertisols (inverted) - high clay content (>35%), shrink and swell, not strongly leached (parent material)