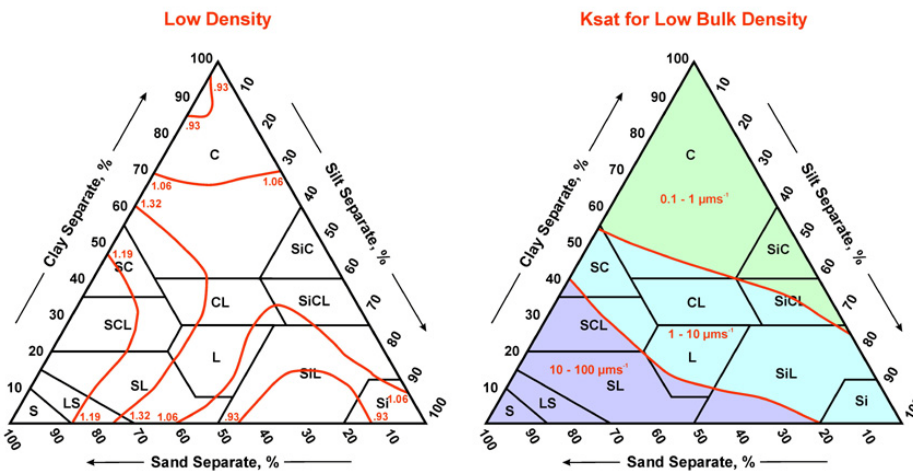
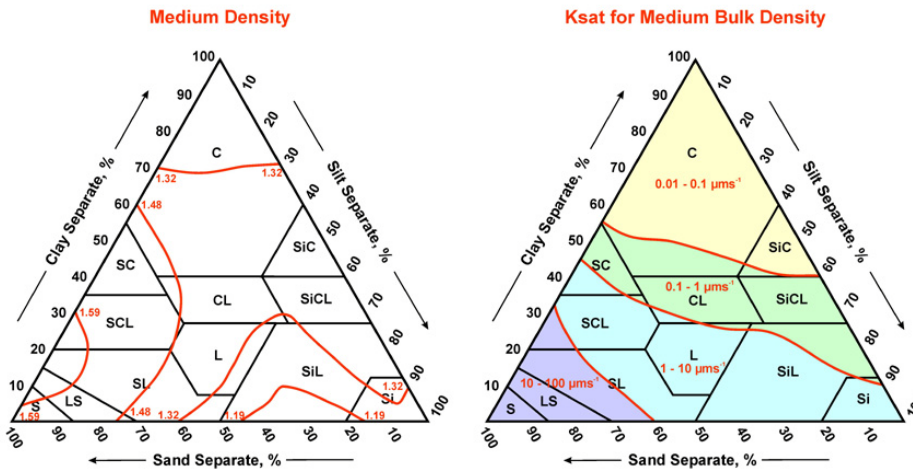


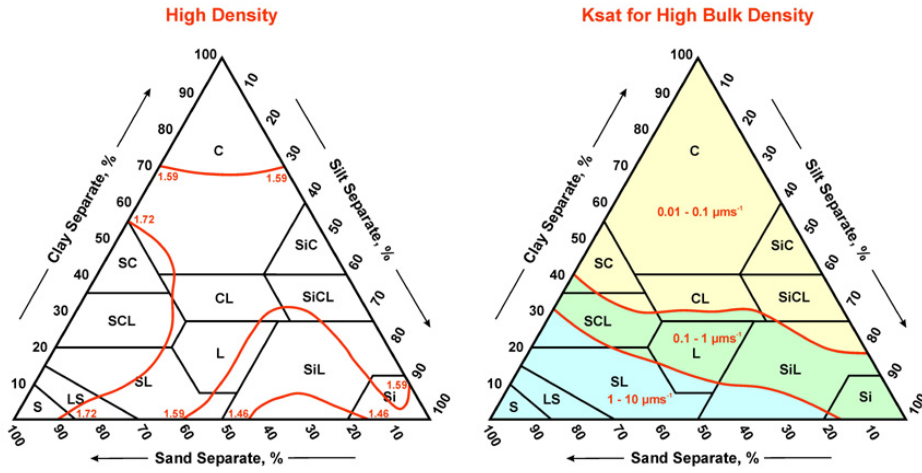
Part 618 – Soil Properties and Qualities

Subpart B – Exhibits

618.88 Guide for Estimating K_{sat} from Soil Properties

Estimate saturated hydraulic conductivity (K_{sat}) from soil texture by first selecting the bulk density class of medium, low, or high. Then use the corresponding texture triangle to select the range of saturated hydraulic conductivity in $\mu\text{m}^2\text{s}^{-1}$. Overrides follow the texture triangles.





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If overriding conditions (listed below) exist, use this table to estimate K_{sat} instead of the texture triangles. A single property statement is sufficient for an override from the texture guides.

Overriding Condition	Saturated Hydraulic Conductivity ($\mu\text{m s}^{-1}$)
All fragmental, cindery, or pumiceous.	≥ 100
Many medium or coarser vertical pores that extend through the layer.	≥ 100
Medial-pumiceous, medial-skeletal, ashy-pumiceous, ashy-skeletal, or hydrous-pumiceous material that is very friable, friable, soft, or loose.	10 – 100
When material is moderately moist or wetter, structure is moderate or strong granular, strong blocky, or prismatic smaller than very coarse; no stress surfaces or slickensides.	10 – 100
Common medium or coarser vertical pores extend through the layer.	10 – 100
Strong very coarse blocky or prismatic structure and no stress surfaces or slickensides.	1 – 10
≥ 35 percent clay that is soft, slightly hard, very friable or friable; no stress surfaces or slickensides and the clay activity is in the range of the Subactive class (i.e., CEC7/non-carbonate clay = < 0.24) after subtracting the quantity $[2 \times (\% \text{ OC} \times 1.7)]$.	1 – 10
Few stress surfaces, few slickensides, or both.	0.1 – 1
Massive and very firm or extremely firm or weakly cemented.	0.1 – 1
Continuously moderately cemented.	0.1 – 1
Common or many stress surfaces or common or many slickensides.	0.01 - 0.1
Continuously indurated or very strongly cemented.	< 0.01