



Reno County Health Department
 209 West 2nd Hutchinson KS 67501 Phone: 620-694-2900 Fax: 620-694-2901

Soil Profile Worksheet

Soil Type: _____

THIS IS NOT A PERMIT

Property Owner:				Property Address:			
Property Owner Phone:			Floodplain on Property: Y N		Mailing Address:		
Land Use:	Lot Size:	Enh Tr: Y N	# of Bedrooms:		Location of Profile Pit:		
Garbage Disposal: Y N	Fixed irrigation over system: Y N		Water conditioner/treatment: Y N		Vegetation:		Fees Paid: Y N

Horizon	Depth	Dominant Color	Mottles	Texture	Structure	Consistence	Roots	Remarks

Loading Rate (GPD / Ft²): _____

Restrictive Layer(s):	Y N
Type:	Depth:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

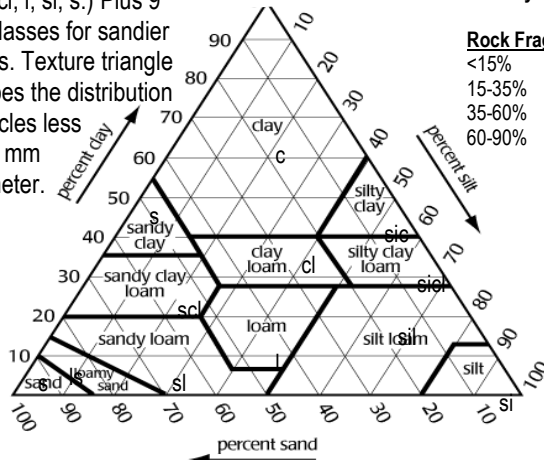
- Minimum Design Standards**
- Refer to the Reno County Sanitation Code, effective October 1st, 2003
 - Refer to the KDHE Bulletin 4-2 Minimum Standards, effective 1997, for design and construction of onsite wastewater systems.
 - Refer to the KAS, KSU, KDHE Environmental Health Handbook, effective 2002, for more design standards.
 - Inspection ports at the ends of each lateral
 - Septic tank manhole riser

Soil Profile Completed by: _____ Date: _____
Environmental Health Specialist

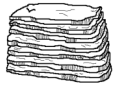
For Official Use Only:
 Reviewed by: _____ Date: _____
 Health Department Designee

Texture

12 main USDA divisions (e.g. sil, l, sl, s.) Plus 9 other classes for sandier textures. Texture triangle describes the distribution of particles less than 2 mm in diameter.



Dominant Color: identifies the color that occupies the greatest volume of the horizon. Use Munsell Color Chart - Hue/Value/Chroma, (e.g. 10YR 5/1).



Platy: Thin, flat plates of soil that lie horizontally. Usually found in E-hz or compacted soils.



Prismatic: Vertical columns of soil that might be a number of cm long. Usually found in subsoil (B) horizons.



Columnar: Vertical columns of soil that have a round "cap" at the top. Found in sodium (Na) affected soils.



Blocky: Irregular blocks that are usually 1.5 - 5.0 cm in diameter.



Granular: Resembles cookie crumbs usually less than 0.5 cm in diameter. Commonly found in surface horizons with prairie grass root systems.



Single Grained: Soil is broken into individual particles that do not stick together. Always accompanies a loose consistence. Commonly found in sandy soils



Massive: Soil has no visible structure, is hard to break apart and appears in very large clods.

Sandier Classes (based on sand size)

Sand: cos, s, fs, vfs
Loamy Sand: lcos, ls, lfs, lvfs
Sandy Loam: cosl, sl, fsl, vsl

Rock Fragments (% Volume)

<15% none used
 15-35% gravelly (G), cobbly (CB)
 35-60% very gravelly, etc.: (VG, VVCB)
 60-90% extr gravelly etc. (EG, ECB)

Boundary (e.g. cw)

Describe the transition between horizons.

Distinctness

Abrupt	A	< 2 cm
Clear	C	2-5 cm
Gradual	G	5-15 cm
Diffuse	D	> 15 cm

Topography

Smooth	S	Nearly a plane
Wavy	W	Waves wider than deep
Irregular	I	Depth greater than width
Broken	B	Discontinuous

Consistence

Describes particle cohesion and adhesion. Strength describes the resistance to crushing a 25 mm cube or medium sized ped with 5 seconds of force.

Moist Soil

Loose	ml	falls apart
Very friable	mvfr	very slight
Friable	mfr	slight
Firm	mfi	moderate
Very firm	mvfi	strong
Extremely firm	mefi	squeeze between hands

Dry Soil

Loose	dl	falls apart
Soft	ds	very slight
Slightly hard	dsh	slight to moderate
Hard	dh	strong
Very hard	dvh	squeeze between hands
Extremely hard	deh	under foot

Crushing Force

ml	falls apart
mvfr	very slight
mfr	slight
mfi	moderate
mvfi	strong
mefi	squeeze between hands

Structure (e.g. 2msbk)

Describe units (peds) that separate at surfaces of weakness - Grade / Size / Shape

Grade

Structureless	0	No aggregation
Weak	1	Barely observable aggregation
Moderate	2	Distinct peds
Strong	3	Durable peds

Size

Very fine	vf	< 1 mm
Fine (Thin)	f	1-2 mm
Medium	m	2-5 mm
Coarse (Thick)	c	5-10 mm
Very coarse	vc	> 10 mm

Shape

Platy	pl	Flat, plate like
Prismatic	pr	Taller than wide
- Columnar	cpr	rounded tops
Blocky	bk	cubical
- Angular	abk	sharp edges
- Subangular	sbk	rounded edges
Granular	gr	spherical, crumb-like
No structure		
- Single grain	sg	sandy texture
- Massive	ma	

Mottling

Describe spots of different color - Color / Quantity / Size / Contrast / Shape

Quantity

Few	f	< 2%
Common	c	2-20%
Many	m	> 20%

Size

Fine	1	< 5 mm
Medium	2	5-15 mm
Coarse	3	> 15 mm

Contrast

Faint	f	Difficult to see
Distinct	d	Readily seen
Prominent	p	Conspicuous

Shape

Note in remarks - streaks, bands, spots, etc.

Horizon (e.g. B 2)

Horizon	Use A, E, B, C
Sub-Horizon	Use 1, 2, 3...

Depth Interval (e.g. 8")

Measured from top of horizon to bottom of horizon. Use inches, decimal feet or centimeters (*show units*).

Granular Platy*

< 1 mm	< 5 mm
1-2 mm	5-10 mm
2-5 mm	10-20 mm
5-10 mm	20-50 mm
> 10 mm	> 50 mm

Angular, Subangular, Blocky

< 5 mm
5-10 mm
10-20 mm
20-50 mm
> 50 mm

Prismatic, Columnar

< 10 mm
10-20 mm
20-50 mm
50-100 mm
> 100 mm

*For platy structure use thin in place of fine and thick rather than coarse.

Roots (e.g. 2 vf)

Quantity

Few	1	< 1 / unit area
Common	2	1-5 / unit area
Many	3	> 5 / unit area

Size

Very fine	vf	< 1 mm	1 cm ²
Fine	f	1-2 mm	1 cm ²
Medium	m	2-5 mm	1 dm ²
Coarse	co	> 5 mm	1 dm ²

