Additional Instructions

1. Combination Horizons: Use the color and texture to describe the color and texture of the underlying horizon or overlying horizon, depending on which is dominant in a combination horizon.

Examples:

Horizon	Texture	Clay %	Moist Color
AE	L	14	10YR 3/1
E	SIL	8	10YR 5/3
Bt/E	SIC	44	7.5YR 5/4
Bt	SIC	44	7.5YR 5/4
C	SICL	36	5YR 4/4

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AE	L	14	10YR 3/1
E	SIL	8	10YR 5/3
E/Bt	SIL	8	10YR 5/3
Bt	SIC	44	7.5YR 5/4
C	SICL	36	5YR 4/4

2. Rock fragments are assumed to hold no water that is available for plant use. For horizons that contain rock fragments, first determine the water retention difference for the fine earth (<2 mm), and then reduce this amount by the value proportionate to the volume of rock fragments.

Use the following factors when determining water retention differences (WRD) in layer with coarse fragments:

If amount of coarse fragments are 15-35%, use a factor of 0.75
If amount of coarse fragments are 35-60%, use a factor of 0.525
If amount of coarse fragments are >60%, use a factor of 0.20

Example:

Horizon: Bt
Thickness: 20 cm
Texture: SIC
Rock Mod.: VCH (very channery – 45% channers)

WRT of the Bt horizon = 20 x .15 x 0.525 = 1.575

3. For determining soil moisture regime, every site in the Black Hills will be considered Udic and everything outside the Black Hills (Redbeds, Dakota Hogback, Shales) will be considered Ustic for this competition.