

PEDON 19

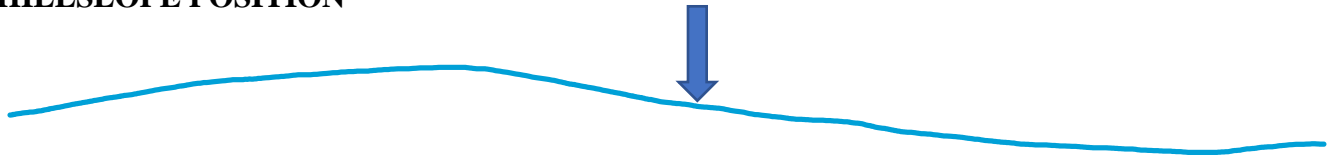
SITE INFORMATION

East-central Minnesota on the Des Moines Lobe till plain in Wright County near Howard Lake, Minnesota. The site has been under continuous cultivation for the past 120 years. The slope is 3% and the agricultural management in the past 30 years has largely consisted of a corn-soybean rotation. The historic vegetation is tallgrass prairie. This site has no ponding or flooding.

LANDFORM AND PARENT MATERIAL

The site is best described as a gently rolling upland with a southeast aspect on a linear slope. Soils of the uplands on the Des Moines Lobe till plain are formed in calcareous, loamy glacial till. The till has coarse fragments (predominantly gravels) throughout.

HILLSLOPE POSITION



SOIL MOISTURE AND TEMPERATURE REGIMES

Upland soils in this region have a udic soil moisture regime, and the soil temperature region is mesic.

SOIL PIT INFORMATION

The 3rd and 4th horizons have visible clay films on the surfaces of peds. The 5th, 6th, and 7th horizons have visible secondary carbonates and are strongly effervescent. The 3rd horizon is a transitional horizon. The coarse fragments are gravels.

CHARACTERIZATION DATA

Horizon	% Base Saturation	% Org. C	CaCO ₃ (%)
1	63	5.1	0
2	62	4.8	0
3	67	2.2	0
4	72	0.5	0
5	100	0.3	2
6	100	0.2	4
7	100	0.2	4

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SITE IMAGE



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PROFILE IMAGE



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SCORECARD

SCORECARD VIRTUAL NATIONAL SOIL JUDGING CONTEST APRIL 5-16, 2021

1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
Total	_____

Contestant: _____
 School: _____
 Pedon Number: PRACTICE 19

1. Soil Morphology

Score: _____

Horizonation			Boundary		Texture						Color			Structure		Cons.	Soil Features		Score (35)	
Master Pre. (5)	Let. (5)	Sub. (5)	Dep. (cm)	Dist.	Sand (%)	Silt (%)	Clay (%) (5)	CF (%)	CF mod. (5)	Class (5)	Hue	Value	Chr.	Grade	Shape	Moist Strength	Redox		Eff	
																	Depth	Conc.		
			18	A	37	42		2			10YR	2	1	2	SBK	FR	-	-	-	
			32	C	34	43		3			10YR	2	1	1	SBK	FR	-	-	-	
			45	C	33	35		3			10YR	2	2	2	SBK	FR	-	-	-	
			61	C	29	37		3			10YR	4	3	3	SBK	F1	-	-	-	
			81	C	41	35		5			2.5Y	4	4	2	SBK	FR	Y	Y	ST	
			125	G	42	36		7			2.5Y	5	4	2	SBK	FR	Y	Y	ST	
			152+	-	44	32		7			2.5Y	5	4	0	MA	FR	Y	Y	ST	

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2. Soil Profile Characteristics

Score: _____

Hydraulic Conductivity (10)	Loading Rate at 75 cm (5)	Effective Soil Depth (5)	Water Retention Difference (5)	Soil Wetness Class (5)
Surface (5) <input type="checkbox"/> High <input type="checkbox"/> Mod. <input type="checkbox"/> Low Limiting Layer (5) <input type="checkbox"/> High <input type="checkbox"/> Mod. <input type="checkbox"/> Low	_____ gpd/ft ² (3) Ref. (2) _____	<input type="checkbox"/> V. shallow (<25 cm) <input type="checkbox"/> Shallow (25 to 49 cm) <input type="checkbox"/> Mod. deep (50 to 99 cm) <input type="checkbox"/> Deep (100 to 149 cm) <input type="checkbox"/> Very deep (≥150 cm)	<input type="checkbox"/> Very low (< 7.5 cm) <input type="checkbox"/> Low (7.5 to < 15 cm) <input type="checkbox"/> Mod. (15 to < 22.5 cm) <input type="checkbox"/> High (≥ 22.5 cm)	<input type="checkbox"/> (> 150 cm) <input type="checkbox"/> (100 to 150 cm) <input type="checkbox"/> (50 to 99 cm) <input type="checkbox"/> (25 to 49 cm) <input type="checkbox"/> (< 25 cm)

3. Site Characteristics

Score: _____

Parent Material (GIVEN)	Landform (GIVEN)	Slope (GIVEN)	Slope Profile (5)	Surface Runoff (5)	Eros. Pot. (5)
GLACIAL TILL	VELAND NOSESLOPE	3%	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input type="checkbox"/> Backslope <input type="checkbox"/> Footslope <input type="checkbox"/> Toeslope <input type="checkbox"/> None	<input type="checkbox"/> Ponded <input type="checkbox"/> Very slow <input type="checkbox"/> Slow <input type="checkbox"/> Medium <input type="checkbox"/> Rapid <input type="checkbox"/> Very rapid	<input type="checkbox"/> Very Low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very High

4. Soil Classification

Score: _____

Epipedon (5)	Subsurface horizons and/or diagnostic features (5 each)	Order (10)	Suborder (10)	Great Group (10)

5. Interpretations

Score: _____

Houses with Basements (3)	Septic Tank Abs. Fields (3)	Local Roads and Streets (3)	Corn (3)	Hopyards (3)	Created Wetlands (3)
<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason # (2): _____	<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason # (2): _____	<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason (2): _____	<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason (2): _____	<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason (2): _____	<input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Reason (2): _____