

**2023 NACTA Soils Judging Contest  
2-Year Division Scorecard**

<b>Contestant Name</b>	
<b>Contestant Number</b>	
<b>College</b>	

<b>Pit Number</b>	
<b>Number of Horizons</b>	
<b>Profile Depth</b>	
<b>Nail Depth</b>	

**Part I. Morphology**

**Part I. Score** \_\_\_\_\_

	HORIZON- ATION	BOUNDARY		COLOR			MOIST CONSIST	TEXTURE		STRUCTURE		SOIL FEATURES	SCORE
		Master	Depth (cm)	Dist.	Hue	Value		Chroma	Rock Fragment Modifier	Class	Type		
	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(28)	
1.													
2.													
3.													
4.													
5.													
6.													
	A B C E R	Record lower depth in cm.	Abrupt (A) Clear (C) Gradual (G) Diffuse (D) None (-)				Loose (L) V. Friable (VFR) Friable (FR) Firm (FI) V. Firm (VFI) Ext. Firm (EFI)	None (-) Gravelly (GR) Very Grav. (VGR) Extrem. Grav. (EGR)	S, LS, SL, L, SCL, SC, C, SIC, SICL, CL, SIL, SI	GR PR SBK CO ABK MA PL SGR WEG	None (-) Concentrations (C) Depletions (D) White (W)		

**Part II – Site and Soil Characteristics**

1) Local Landform (5)

- \_\_\_\_\_ Upland
- \_\_\_\_\_ Upland depression
- \_\_\_\_\_ Alluvial fan
- \_\_\_\_\_ Stream terrace
- \_\_\_\_\_ Floodplain
- \_\_\_\_\_ Footslope
- \_\_\_\_\_ Paleoterrace
- \_\_\_\_\_ Dunes/Interdunes

2) Parent Material (5 pts each correct)

- \_\_\_\_\_ Alluvium
- \_\_\_\_\_ Colluvium
- \_\_\_\_\_ Eolian sand/Eolian loam
- \_\_\_\_\_ Loess
- \_\_\_\_\_ Residuum

3) Slope (5)

- \_\_\_\_\_ Concave
- \_\_\_\_\_ 0 - < 2%
- \_\_\_\_\_ 2 - < 5%
- \_\_\_\_\_ 5 - < 10%
- \_\_\_\_\_ 10 - < 15%
- \_\_\_\_\_ 15 - 20%
- \_\_\_\_\_ > 20%

4) Hillslope Profile Position (5)

- \_\_\_\_\_ Summit
- \_\_\_\_\_ Shoulder
- \_\_\_\_\_ Backslope
- \_\_\_\_\_ Footslope
- \_\_\_\_\_ Toeslope
- \_\_\_\_\_ None (slope <2%)

5) Surface Ruoff (5)

- \_\_\_\_\_ Negligible
- \_\_\_\_\_ Very slow
- \_\_\_\_\_ Slow
- \_\_\_\_\_ Moderate
- \_\_\_\_\_ Rapid
- \_\_\_\_\_ Very rapid

6) Soil Erosion Potential (5)

- \_\_\_\_\_ Low
- \_\_\_\_\_ Medium
- \_\_\_\_\_ High

7) Soil Wetness Class (5)

- \_\_\_\_\_ Not wet above 150 cm (WD)
- \_\_\_\_\_ Wet between 50 to 150 cm (MWD)
- \_\_\_\_\_ Wet between 25 to <50 cm (SWPD)
- \_\_\_\_\_ Wet above 25 cm (PD)

8) Effective Soil Depth (5)

- \_\_\_\_\_ Very shallow (< 25 cm)
- \_\_\_\_\_ Shallow (25 - < 50 cm)
- \_\_\_\_\_ Moderately deep (50 - < 100 cm)
- \_\_\_\_\_ Deep (100 – 150 cm)
- \_\_\_\_\_ Very deep (> 150 cm)

9) Hydraulic Conductivity – Surface (5)

- \_\_\_\_\_ Slow
- \_\_\_\_\_ Moderate
- \_\_\_\_\_ Rapid

10) Hydraulic Conductivity – Limiting (5)

- \_\_\_\_\_ Slow
- \_\_\_\_\_ Moderate
- \_\_\_\_\_ Rapid

11) Water Retention Difference (5)

- \_\_\_\_\_ Very low (< 7.5 cm)
- \_\_\_\_\_ Low (7.5 - < 15 cm)
- \_\_\_\_\_ Moderate (15 – 22.5 cm)
- \_\_\_\_\_ High (> 22.5 cm)

**Part III – Interpretations**

1) Roadfill (5)

- \_\_\_\_\_ Good
- \_\_\_\_\_ Fair
- \_\_\_\_\_ Poor

\_\_\_\_\_ Feature (5)

2) Septic Tank Absorption Fields (5)

- \_\_\_\_\_ Good
- \_\_\_\_\_ Fair
- \_\_\_\_\_ Poor

\_\_\_\_\_ Feature (5)

3) Sewage Lagoons (5)

- \_\_\_\_\_ Good
- \_\_\_\_\_ Fair
- \_\_\_\_\_ Poor

\_\_\_\_\_ Feature (5)

Tie Breaker (Surface)

% clay \_\_\_\_\_ % Sand \_\_\_\_\_

Part II and III Score \_\_\_\_\_

**Total Score** \_\_\_\_\_