Soil Study and Land Evaluation Scorecard Part I

SITE			SURFACE SOIL	
Position in Landscape (5 points)	**Slope (5 points)**	**Type and Degree of Erosion or Deposition (5 points)**	**Texture (5 points)**	**Structure (5 points)**
Upland Hilltop or Plain ☒	0% **Nearly Level** ☒ 0 – 2 %	**None to Slight** Water ☐ Over 75% of the original surface soil remains Wind ☐ original 10" now 7"	**Coarse** ☐ Sands and Loamy sands	**Loose** ☐ Single grained
Sloping Hillside ☐	**Gently Sloping** ☐ 2 – 6 %	**Moderate** Water ☐ 25 to 75% of the surface soil remains (some mixing of subsoil with surface layer) Wind ☒	**Moderately Coarse** ☒ Sandy Loam	**Granular** ☐ Fragments small, Mostly rounded
Depression and/or drainage way ☐	**Moderately Sloping** ☐ 6 – 12 %		**Medium** ☐ Loam, Silt, Silt loam	**Blocky** ☒ Fragments irregular, Some sharp corners
Stream Bottom Or Bench Nearly level ☐	**Strongly Sloping** ☐ 12 – 20 %	**Severe** Water ☐ Less than 25% of surface soil remains (Plow layer mostly subsoil material) Wind ☐	**Moderately Fine** ☐ Clay loam, Sandy clay loam, Silty clay loam	**Platy** ☐ Fragments flat and thin
Sloping ☐	**Steep** ☐ 20 – 30 %		**Fine** ☐ Sandy clay, Silty clay, Clay	**Cloddy** ☐ Fragments large and irregular
Depressional ☐	**Very Steep** ☐ 30% or greater	**Deposition** ☐ By wind or water	**Organic** ☐ Peat and Muck	

SUBSOIL (thickest or most prominent layer below surface soil) – *Answer regardless of soil depth*		SOIL PROFILE		SOIL TEST REPORT
Texture (5 points)	**Structure (5 points)**	**Natural Drainage (5 points)**	**Depth of soil Favorable for Roots (5 points)**	**Soil Fertility and Nutrient Management (5 points)**
Coarse ☐ Sands and Loamy sands	**Loose** ☐ Single grained	**Very Poorly** ☐ Organic	**Over 40 inches** ☒	**pH adjustment** ☒
Moderately Coarse ☐ Sandy Loam	**Granular** ☐ Fragments small, Mostly rounded	**Poorly** ☐ Mottling above 12"	**20 to 40 inches** ☐	**Nitrogen** ☒
Medium ☐ Loam, Silt, Silt loam	**Blocky** ☒ Fragments irregular, Some sharp corners	**Somewhat Poorly** ☐ Mottles between 12" and 36"	**12 to 20 inches** ☐	**Phosphorus** ☒
Moderately Fine ☒ Clay loam, Sandy clay loam, Silty clay loam	**Platy** ☐ Fragments flat and thin	**Moderately Well or Well** ☒ No mottles above 36"	**Less than 12 inches** ☐	**Potassium** ☒
Fine ☐ Sandy clay, Silty clay, Clay	**Prismatic, Columnar or Massive** ☐ Large fragments		Root growth of crops **MAY** be limited by: Sand gravel layers, Bedrock, Soil pans, Marl	**No fertilizer/soil amendments needed** ☐
Organic ☐ Peat and Muck				**NOTE: CHECK ALL NEEDED AMENDMENTS** (may be more than one box checked)

Soil Study and Land Evaluation Scorecard · Part II-V

PART II. Soil Limitations

Potential Score 14 Pts (2 Pts Per Correct Answer)

Mark **all** characteristics **Yes** if they are limiting, **No** if not limiting.

Yes	No		
☒	☐	1.	Soil subject to sheet, rill, or wind erosion
☐	☒	2.	Subject to occasional overflow or flooding
☐	☒	3.	Surface drainage restricted
☐	☒	4.	Subsoil drainage restricted from high water table
☐	☒	5.	Low available water capacity
☐	☒	6.	Stoniness
☐	☒	7.	No major limitations

PART III. Land Capability Classes

Potential Score 7 Pts

3 Points – Answer One Class Off

Mark **one** as the **most intensive long-term use** for this land when needed conservation practices are applied.

_____ CLASS I: May be safely used for intensive cropping such as continuous row crops.

35" of loamy material over sand

__X__ CLASS II: Requires general soil conserving cropping systems.

_____ CLASS III Requires specific practices and conservation measures for cultivated crops.

_____ CLASS IV Requires intensive soil conserving systems and practices for cultivated crops.

(CLASS V - *NOT APPLICABLE IN WISCONSIN)*

_____ CLASS VI Develop permanent pasture or timber. Use conservation practices.

_____ CLASS VII Use very carefully for pasture. Improve for timber production. Needs careful conservation.

_____ CLASS VIII Reserve for wildlife production.

PART IV. Conservation Practices for Long Term Land Use

Potential Score 26 Pts (2 Pts Per Correct Answer)

Mark **all** practices, **Yes** if it is needed, **No** if not needed, for most-intensive land use, unless otherwise indicated on Pit Information Card.

Yes	No		
☒	☐	1.	Develop and implement a nutrient management plan
☒	☐	2.	Use residue management and/or plant cover crop
☐	☒	3.	Contour farming, contour buffer strips, contour strip cropping, or terraces
☐	☒	4.	Maintain existing terraces
☐	☒	5.	Construct or maintain grassed waterways, diversions, or erosion control structures
☐	☒	6.	Renovate or otherwise improve pasture
☐	☒	7.	Eliminate or manage grazing
☐	☒	8.	Improve timber stand or plant adapted trees in woodland
☒	☐	9.	Establish windbreaks
☐	☒	10.	Protect stream banks or lakeshore
☐	☒	11.	Improve fish and wildlife habitat
☐	☒	12.	Establish/maintain riparian forest buffer or grass filter strip
☐	☒	13.	Control invasive species that are present

PART V. Non-Ag Land Use Limitations

Potential Score 3 Pts (1 Pt Per Correct Answer)

Mark **Yes** if limitations are present for the following, **No** if not.

Yes	No		
☐	☒	1.	Houses with Basements
☒	☐	2.	Septic Tank Absorption Fields
☒	☐	3.	Local Roads, Streets and Driveways

Possible Points	Official Score
Part I - 50	_____ of 50
Part II - 14	_____ of 14
Part III - 7	_____ of 7
Part IV - 26	_____ of 26
Part V - 3	_____ of 3
TOTAL – 100	_____ of 100

Team Name _____ **Contestant Name** _____ **Pit No.**_____

Team No. _____ **Contestant No.** _____ **Div: Sr/Jr/4H**