## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:   |  | L3R  |   |  |   |   |   |                 |   | Date:  | 09/23/14   |
|---|--|--|---|--|---|---|---|-----------------|---|--|--|
| Applicant:  | ant: Enbridge  |  |   |  |   |   |   |                 |   | County:  | Marshall   |
| Investigators   | stigators: NTT/BEH Subregion (MLRA or LRR): MLRA 56  |  |   |  |   |   |   |                 |   | State:   | MN   |
| Soil Unit:  | Soil Unit: 118A NWI Classification:  |  |   |  |   |   |   |                 |   |  |  |
| Landform:   |  |  |   |  |   |   |   |                 |   | Sample Point   | <mark>։ w-155n45w34-b1</mark>  |
| Slope (%):  | 0 - 2%   |  | Latitude: 48.2  |  | Longitude:  |   |   | Datum:          |   | Orations   |  |
|   |  | nditions on the site   |   |  | al ? (If no, exp  | 1   |   |                 |   | Section:   |  |
| Are Vegetation  |  | □, or Hydrology<br>□, or Hydrology   | -   |  |   | Are   | e normal circun<br>☑ Yes                                      | Istances pre    | esent?  | Township:  | Dir:   |
|   |  |  | Haturally p   |  |   |   |   |                 |   | Range:   | DII.   |
| SUMMARY OF FINDINGS         Hydrophytic Vegetation Present?       Yes         Hydrophytic Vegetation Present?       Yes   |  |  |   |  |   |   |   |                 |   |  |  |
|   | -  |  | Yes   |  | -   |   |   |                 |   |  | /etland? Yes   |
| Wetland Hydrology Present?       Yes       Is This Sampling Point Within A Wetland?       Yes         Remarks:       The wetland is a seasonally-flooded basin located within a soybean field. Little vegetation is growing within the wetland.       Yes |  |  |   |  |   |   |   |                 |   |  |  |
|   |  | ,,   |   |  | · · · · <b>·</b> · · · · ·  |   |   |                 |   |  |  |
| HYDROLOG  | Y  |  |   |  |   |   |   |                 |   |  |  |
|   |  | icators (Check all   | that annly: I   | Minimum of or  | o primary   | or two se   | econdary requi  | red)•           |   |  |  |
| Primary   | •••  |  | that apply, i   |  | le primary  | 01 100 56   | econdary requi  | eu).            | Secondary:  |  |  |
|   | A1 - Surface \   | Water  |   |  | B11 - Salt  | Crust   |   |                 |   | B6 - Surface S   | Soil Cracks  |
|   | A2 - High Wa   |  |   |  | B13 - Aqua  |   |   |                 | $\checkmark$  |  | Vegetated Concave Surface  |
|   | A3 - Saturatio   |  |   |  | C1 - Hydro  |   |   |                 |   | B10 - Drainag  |  |
|   | B1 - Water Ma<br>B2 - Sedimen  |  |   |  | C2 - Dry So   |   | spheres on Living   | Roots (not till |   | C3 - Oxidized<br>C8 - Crayfish   | Rhizospheres on Living Roots (tilled)  |
|   | B3 - Drift Dep   |  |   |  | C3 - Oxidiz<br>C4 - Prese   |   |   |                 |   | •  | on Visible on Aerial Imagery   |
|   | B4 - Algal Ma  |  |   |  | C7 - Thin N   |   |   |                 |   | D2 - Geomorp   | •••  |
|   | B5 - Iron Dep  | osits  |   |  | Other (Exp  | olain)  |   |                 |   | D5 - FAC-Neu   |  |
|   |  | n Visible on Aerial Ima  | agery   |  |   |   |   |                 |   | D7 - Frost-He  | aved Hummocks (LRR F)  |
|   | B9 - Water-St  | ained Leaves   |   |  |   |   |   |                 |   |  |  |
|   | votiona  |  |   |  |   |   |   |                 |   |  |  |
| Field Observ  |  |  | -   |  | (:  |   |   |                 |   |  |  |
| Surface Wate  |  |  | Dep   |  | _ (in.)   |   |   | Wetland F       | lydrology l   | Present?   | Y  |
| Water Table   |  | Yes D  | Dep   |  | _ (in.)   |   |   |                 |   |  |  |
| Saturation Present? Yes Depth: (in.)  |  |  |   |  |   |   |   |                 |   |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |  |  |   |  |   |   |   |                 |   |  |  |
| Remarks: No primary hydrology indicators are present. Wetland hydrology is assumed based on soil cracking, sparse hydrophytic vegetation, and landscape position.   |  |  |   |  |   |   |   |                 |   |  |  |
| Remarks:  | No primary   | nydrology indicator  | s are prese   | nt. Wetland h  | drology is  | assume  | d based on soi  | I cracking, s   | sparse hydr   | opnytic vege   | tation, and landscape position.  |
|   | No primary   | nydrology indicator  | s are prese   | ent. Wetland h   | drology is  | assume  | d based on soi  | l cracking, s   | sparse hydr   | ophytic vege   | tation, and landscape position.  |
| SOILS   |  |  | ·   |  |   |   |   |                 | sparse hydr   | opnytic vege   | tation, and landscape position.  |
| SOILS<br>Profile Descri   | iption (Descri   | be to the depth nee  | eded to doc   | ument the ind  | cator or co   | onfirm the  | e absence of in   | dicators.)      | sparse hydr   | opnytic vege   | tation, and landscape position.  |
| SOILS<br>Profile Descri   | iption (Descri   |  | eded to doc   | ument the ind  | cator or co   | onfirm the  | e absence of in   | dicators.)      | sparse hydr   | opnytic vege   | etation, and landscape position.   |
| SOILS<br>Profile Descri   | iption (Descri   | be to the depth nee  | eded to doc   | ument the ind  | cator or co   | onfirm the  | e absence of in<br>ore Lining, M=Matr                         | dicators.)      | sparse hydr   |  | etation, and landscape position.   |
| SOILS<br>Profile Descri<br>(Type: C=Concer  | iption (Descri   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca   | onfirm the  | e absence of in<br>ore Lining, M=Matr<br>es                   | idicators.)     | sparse hydr   |  | Remarks  |
| SOILS<br>Profile Descri   | iption (Descri   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)   | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca   | onfirm the<br>tion: PL=Pe<br>Mottle                         | e absence of in<br>ore Lining, M=Matr                         | dicators.)      |   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)   | iption (Descri<br>ntration, D=Deple<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Po<br>Mottle                         | e absence of in<br>ore Lining, M=Matr<br>es<br>Type           | dicators.)      |   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10   | iption (Descri   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Pe<br>Mottle                         | e absence of in<br>ore Lining, M=Matr<br>es                   | idicators.)     | Texture<br>CL   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10   | iption (Descri<br>ntration, D=Deple<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Po<br>Mottle                         | e absence of in<br>ore Lining, M=Matr<br>es<br>Type           | dicators.)      | Texture<br>CL   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10   | iption (Descri<br>ntration, D=Deple<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Po<br>Mottle                         | e absence of in<br>ore Lining, M=Matr<br>es<br>Type           | dicators.)      | Texture<br>CL   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10   | iption (Descri<br>ntration, D=Deple<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1  | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Po<br>Mottle                         | e absence of in<br>ore Lining, M=Matr<br>es<br>Type           | dicators.)      | Texture<br>CL   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18  | iption (Descrintration, D=Deple<br>Hue_10YR<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1   | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Pe<br>Mottle<br>%                    | e absence of in<br>ore Lining, M=Matr<br>es<br>Type           | dicators.)      | Texture<br>CL   |  |  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18  | iption (Descri<br>ntration, D=Deple<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1   | eded to doc<br>trix, CS=Cove  | ument the ind<br>red/Coated Sand   | cator or co<br>Grains; Loca<br>Moist)   | onfirm the<br>tion: PL=Pe<br>Mottle<br>%                    | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | dicators.)      | Texture<br>CL<br>S  |  | Remarks  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18<br>NRCS Hydr   | iption (Descrintration, D=Deple<br>Hue_10YR<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1   | eded to doc<br>trix, CS=Cove<br>%<br>10<br>90<br>eck here if i  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR   | cator or co<br>Grains; Loca<br>Moist)<br>6/8  | onfirm the<br>tion: PL=Pe<br>Mottle<br>%                    | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location        | Texture<br>CL<br>S  | or Problemati  | Remarks  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18  | iption (Descrintration, D=Deple<br>Hue_10YR<br>Hue_10YR  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>Indicators (che  | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>9(<br>eck here if i  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR   | cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>not presen  | onfirm the<br>tion: PL=Pe<br>Mottle<br>%                    | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location        | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M   | or Problemati  | Remarks  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18<br>NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>ic Soil Field<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>Indicators (che  | eded to doc<br>trix, CS=Cover<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D S5 - Sandy F<br>D S5 - Sandy F<br>D S6 - Stripped<br>D F1 - Loamy F  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>not presen   | nfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t):  | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark S   | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)  | ic Soils <sup>1</sup><br>(LRR F, G, H)   |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>ic Soil Field<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>Indicators (che<br>ipedon<br>stic<br>n Sulfide   | eded to doc<br>trix, CS=Cover<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>D S6 - Stripped<br>F1 - Loamy R  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>1 Matrix<br>Mucky Minera<br>Gleyed Matrix   | nfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t):  | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark St<br>F16 - High F  | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)  | Remarks  |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Generation<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>5/1<br>Indicators (che<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)  | eded to doc<br>trix, CS=Cove<br>%<br>10<br>90<br>eck here if i  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F3 - Sandy R<br>D S5 - Sandy R   | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8   | nfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t):  | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark St<br>F16 - High F<br>F18 - Reduc   | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic   | ic Soils <sup>1</sup><br>(LRR F, G, H)   |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>ic Soil Field<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)  | eded to doc<br>trix, CS=Cove<br>%<br>10<br>90<br>eck here if i  | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>D S6 - Stripped<br>F1 - Loamy R<br>D F2 - Loamy R<br>D F3 - Deplete<br>F6 - Redox R  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>1 Matrix<br>Mucky Minera<br>Gleyed Matrix<br>Jark Surface  | nfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t):  | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark So<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P                                | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ed Vertic<br>Parent Material                                       | ic Soils <sup>1</sup><br>(LRR F, G, H)   |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>ic Soil Field<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>5/1<br>Indicators (che<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface  | eded to doc<br>trix, CS=Cove<br>%<br>10<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90   | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F3 - Sandy R<br>D S5 - Sandy R   | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8   | nfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t):  | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location        | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very                 | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic   | Remarks  |
| SOILS<br>Profile Descri<br>(Type: C=Concer<br>Depth (In.)<br>0-10<br>10-18<br>NRCS Hydr<br>□<br>□<br>□<br>□<br>□<br>□<br>□<br>□   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>ic Soil Field<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral   | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10   | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>S5 - Sandy R | Cator or co<br>Grains; Loca<br>Moist)<br>Moist)<br>6/8<br>6/8<br>Not presen<br>Redox<br>I Matrix<br>Mucky Minera<br>Gleyed Matri<br>Gleyed Matri<br>Gleyed Matri<br>Dark Surface<br>Dark Surface          | monfirm the tion: PL=Per Mottle % 10 10 t):                 | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very                 | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark                      | Remarks  |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydrogei<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm M  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>5/1<br>Indicators (che<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LF | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>S5 - Sandy R | Cator or co<br>Grains; Loca<br>Moist)<br>Moist)<br>6/8<br>6/8<br>Not presen<br>Redox<br>I Matrix<br>Mucky Minera<br>Gleyed Matri<br>Gleyed Matri<br>Gleyed Matri<br>Dark Surface<br>Dark Surface          | monfirm the tion: PL=Per Mottle % 10 10 t):                 | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S  | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark s<br>ain in Remarks) | ic Soils <sup>1</sup><br>(LRR F, G, H)<br>)<br>ions (LRR H, outside MLRA 72, 73)<br>Surface  |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydrogei<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm Mu<br>S3 - 5 cm Mu   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LR                           | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>S5 - Sandy R | Cator or co<br>Grains; Loca<br>Moist)<br>Moist)<br>6/8<br>6/8<br>Not presen<br>Redox<br>I Matrix<br>Mucky Minera<br>Gleyed Matri<br>Gleyed Matri<br>Gleyed Matri<br>Dark Surface<br>Dark Surface          | monfirm the tion: PL=Per Mottle % 10 10 t):                 | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark S<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydrogei<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm M  | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LR                           | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>S5 - Sandy R | Cator or co<br>Grains; Loca<br>Moist)<br>Moist)<br>6/8<br>6/8<br>Not presen<br>Redox<br>I Matrix<br>Mucky Minera<br>Gleyed Matri<br>Gleyed Matri<br>Gleyed Matri<br>Dark Surface<br>Dark Surface          | monfirm the tion: PL=Per Mottle % 10 10 t):                 | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark s<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydrogen<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm Mu<br>S3 - 5 cm Mu<br>S4 - Sandy G   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LR                           | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy F<br>D S5 - Sandy F<br>D S5 - Sandy F<br>D S6 - Stripped<br>F1 - Loamy F<br>D F2 - Loamy F<br>D F2 - Loamy F<br>D F3 - Deplete<br>F6 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F8 - Redox F<br>F16 - High P  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8   | monfirm the tion: PL=Per Mottle % 10 10 t): al x ace        | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C      | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark S<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr NRCS Hydr   | Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Deplete<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm Mu<br>S3 - 5 cm Mu<br>S4 - Sandy G   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LR                           | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>9(<br>10<br>9(<br>10)<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy R<br>D S5 - Sandy R<br>S5 - Sandy R | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8   | monfirm the tion: PL=Per Mottle % 10 10 t): al x ace        | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C<br>C | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark S<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | iption (Descrintration, D=Depleter<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Depleter<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm Mu<br>S3 - 5 cm Mu<br>S3 - 5 cm Mu<br>S3 - 5 cm Mu<br>S4 - Sandy G   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LRF<br>leyed Matrix          | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10   | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy F<br>D S5 - Sandy F<br>S6 - Stripped<br>F1 - Loamy F<br>F2 - Loamy F<br>F3 - Deplete<br>F6 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F16 - High P  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6<br>6<br>6<br>7<br>8<br>8<br>9<br>8<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9 | onfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t): | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C<br>C | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark S<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |
| SOILS Profile Descri (Type: C=Concer Depth (In.) 0-10 10-18 NRCS Hydr   | iption (Descrintration, D=Depleter<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>Hue_10YR<br>A1- Histosol<br>A2 - Histic Ep<br>A3 - Black His<br>A4 - Hydroger<br>A3 - Black His<br>A4 - Hydroger<br>A5 - Stratified<br>A9 - 1 cm Mu<br>A11 - Depleter<br>A12 - Thick D<br>S1 - Sandy M<br>S2 - 2.5 cm Mu<br>S3 - 5 cm Mu<br>S3 - 5 cm Mu<br>S3 - 5 cm Mu<br>S4 - Sandy G   | be to the depth nee<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>5/1<br>ipedon<br>stic<br>n Sulfide<br>Layers (LRR F)<br>ck (LRR FGH)<br>d Below Dark Surface<br>ark Surface<br>ucky Mineral<br>fucky Peat or Peat (LR                           | eded to doc<br>trix, CS=Cove<br>%<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>9(<br>10<br>10<br>9(<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10   | ument the ind<br>red/Coated Sand<br>Color (<br>0<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D Hue_10YR<br>D F1 - Loamy F<br>D S5 - Sandy F<br>S6 - Stripped<br>F1 - Loamy F<br>F2 - Loamy F<br>F3 - Deplete<br>F6 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F7 - Deplete<br>F8 - Redox F<br>F16 - High P  | Cator or co<br>Grains; Loca<br>Moist)<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6/8<br>6<br>6<br>6<br>7<br>8<br>8<br>9<br>8<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9 | onfirm the<br>tion: PL=Po<br>Mottle<br>%<br>10<br>10<br>t): | e absence of in<br>ore Lining, M=Matr<br>es<br>Type<br>C<br>C | Location<br>M   | Texture<br>CL<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Se<br>F16 - High F<br>F18 - Reduc<br>TF2 - Red P<br>TF12 - Very<br>Other (Expla | or Problemati<br>luck (LRR I, J)<br>Prairie Redox<br>urface (LRR G)<br>Plains Depressi<br>ced Vertic<br>Parent Material<br>Shallow Dark S<br>ain in Remarks) | Remarks         ic Soils <sup>1</sup> (LRR F, G, H)         ions (LRR H, outside MLRA 72, 73)         Surface         )         ation and wetland hydrology must be present, |

## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:       | L3R   |                 |                 |            | Sample Point:   | w-155n45w34-b1                      |  |  |  |  |  |
|---------------------|---|-----------------|-----------------|------------|---|-------------------------------------|--|--|--|--|--|
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
| VEGETATIO           | N (Species identified in all uppercase are      | e non-native sp | pecies.)        |            |   |                                     |  |  |  |  |  |
| Tree Stratum        | (Plot size: 30 ft. radius)                      |                 |                 |            |   |                                     |  |  |  |  |  |
|                     | <u>Species Name</u>                             | <u>% Cover</u>  | <u>Dominant</u> | Ind.Status | Dominance Test Worksheet                                  |                                     |  |  |  |  |  |
| 1.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 2.                  | <u></u>   |                 |                 |            | Number of Dominant Species that are OBL, FAC              | W, or FAC: <u>1</u> (A)             |  |  |  |  |  |
| 3.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 4.                  |   |                 |                 |            | Total Number of Dominant Species Across All Strata: 1 (B) |                                     |  |  |  |  |  |
| 5.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 6.                  |   |                 |                 |            | Percent of Dominant Species That Are OBL, FAC             | W, or FAC: <u>100.0%</u> (A/B)      |  |  |  |  |  |
| 7.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 8.                  |   |                 |                 |            | Prevalence Index Worksheet                                |                                     |  |  |  |  |  |
| 9.                  |   |                 |                 |            | Total % Cover of: Multiply by:                            |                                     |  |  |  |  |  |
| 10.                 |   |                 |                 |            | OBL spp. 0 x 1 =  | 0                                   |  |  |  |  |  |
|                     | Total Cover = _                                 | 0               |                 |            | FACW spp. <u>5</u> x 2 =                                  | 10                                  |  |  |  |  |  |
|                     |   |                 |                 |            | FAC spp. 0 x 3 =  |                                     |  |  |  |  |  |
| Sapling/Shrub       | Stratum (Plot size: 15 ft. radius)              |                 |                 |            |   | 0                                   |  |  |  |  |  |
| 1.                  |   |                 |                 |            | UPL spp. <u>0</u>   | 0                                   |  |  |  |  |  |
| 2.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 3.                  |   |                 |                 |            | Total <u>5</u> (A)  | <u>10</u> (B)                       |  |  |  |  |  |
| 4.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 5.                  |   |                 |                 |            | Prevalence Index = B/A =                                  | 2.000                               |  |  |  |  |  |
| 6.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 7.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 8.                  |   |                 |                 |            | Hydrophytic Vegetation Indicators:                        |                                     |  |  |  |  |  |
| 9.                  |   |                 |                 |            | Rapid Test for Hyd  | drophytic Vegetation                |  |  |  |  |  |
| 10.                 |   |                 |                 |            | X Dominance Test is                                       | s > 50%                             |  |  |  |  |  |
|                     | Total Cover = _                                 | 0               |                 |            | X Prevalence Index  | is ≤ 3.0 *                          |  |  |  |  |  |
|                     |   |                 |                 |            | Morphological Ada   | aptations (Explain) *               |  |  |  |  |  |
| Herb Stratum (      | Plot size: 5 ft. radius)                        |                 |                 |            | Problem Hydrophy  | vtic Vegetation (Explain) *         |  |  |  |  |  |
| 1.                  | Persicaria maculosa                             | 5               | Y               | FACW       |   |                                     |  |  |  |  |  |
| 2.                  |   |                 |                 |            | * Indicators of hydric soil and                           | l wetland hydrology must be         |  |  |  |  |  |
| 3.                  |   |                 |                 |            | present, unless distu                                     | urbed or problematic.               |  |  |  |  |  |
| 4.                  |   |                 |                 |            | Definitions of Vegetation Strata:                         |                                     |  |  |  |  |  |
| 5.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 6                   |   |                 |                 |            | <b>Tree -</b> Woody plants 3 in. (7.                      | 6cm) or more in diameter at breast  |  |  |  |  |  |
| 7.                  |   |                 |                 |            | height (DBH), regardle                                    |                                     |  |  |  |  |  |
| 8.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 9.                  |   |                 |                 |            | Sapling/Shrub - Woody plants less that                    | an 3 in. DBH, regardless of height. |  |  |  |  |  |
| 10.                 |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 11.                 |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 12.                 |   |                 |                 |            | Herb - All herbaceous (non-w                              | voody) plants, regardless of size.  |  |  |  |  |  |
| 13.                 |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 14.                 |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 15.                 |   |                 |                 |            | Woody Vines - All woody vines, rega                       | ardless of height.                  |  |  |  |  |  |
|                     | Total Cover =                                   | 5               |                 |            | •   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
| Woody Vine St       | ratum (Plot size: 30 ft. radius)                |                 |                 |            |   |                                     |  |  |  |  |  |
| 1                   |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 2.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 3.                  |   |                 |                 |            | Hydrophytic Vegetation F                                  | Present? Y                          |  |  |  |  |  |
| 5.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| 4.                  |   |                 |                 |            |   |                                     |  |  |  |  |  |
| <del></del>         | Total Cover =                                   | 0               |                 |            |   |                                     |  |  |  |  |  |
| Remarks:            | The majority of the ground layer is bare soil b |                 | sparse          | amounte o  | f ladv's thumb  |                                     |  |  |  |  |  |
|                     | The majority of the ground layer is bare soll b |                 | Sparse c        |            |   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
| Additional Remarks: |   |                 |                 |            |   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |
|                     |   |                 |                 |            |   |                                     |  |  |  |  |  |