WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP   City/County: Wadena   Sampling Date: 9/8/2014
Applicant/Owner: Enbridge   State: MN   Sampling Point: WA004b1U
Investigator(s): BEH/RAJ   Section, Township, Range:
Landform (hillslope, terrace, etc.): Talf   Local relief (concave, convex, none LL
Slope (%): 0 - 2%   Lat.: 46.79705547   Long.: -94.90679211   Datum:
Soil Map Unit Name: 458A   NWI Classification: PEMB
Are climatic/hydrologic conditions of the site typical for this time of the year? ☑ (If no, explain in remarks)
Are vegetation ☑ , soil ☑ , or hydrology ☐ significantly disturbed?   Are "normal
Are vegetation ☐ , soil ☑ , or hydrology ☐ naturally problematic?   circumstances" present? ☑
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?** N
Hydric soil present?	N	
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The sample point is within an NWI polygon located in a potato field. No wetland indicators were observed.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)

☐ Surface Water (A1)   ☐ Water-Stained Leaves (B9)   ☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)   ☐ Aquatic Fauna (B13)   ☐ Drainage Patterns (B10)
☐ Saturation (A3)   ☐ Marl Deposits (B15)   ☐ Moss Trim Lines (B16)
☐ Water Marks (B1)   ☐ Hydrogen Sulfide Odor (C1)   ☐ Dry-Season Water Table (C2)
☐ Sediment Deposits (B2)   ☐ Oxidized Rhizospheres on Living   ☐ Crayfish Burrows (C8)
☐ Drift Deposits (B3)   Roots (C3)   ☐ Saturation Visible on Aerial Imagery
☐ Algal Mat or Crust (B4)   ☐ Presence of Reduced Iron (C4)   (C9)
☐ Iron Deposits (B5)   ☐ Recent Iron Reduction in Tilled   ☐ Stunted or Stressed Plants (D1)
☐ Inundation Visible on Aerial   Soils (C6)   ☐ Geomorphic Position (D2)
   Imagery (B7)   ☐ Thin Muck Surface (C7)   ☐ Shallow Aquitard (D3)
☐ Sparsely Vegetated Concave   ☐ Other (Explain in Remarks)   ☐ Microtopographic Relief (D4)
   Surface (B8)   ☐ FAC-Neutral Test (D5)

Field Observations:
Surface water present?   Yes ☐   Depth (inches): _____   **Indicators of**
Water table present?   Yes ☐   Depth (inches): _____   **wetland**
Saturation present?   Yes ☐   Depth (inches): _____   **hydrology**
(includes capillary fringe)   **present?** N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No primary or secondary hydrological indicators were observed.

VEGETATION - Use scientific names of plants **Sampling Point:** WA004b1U

Tree Stratum Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Sapling/Shrub Stratum Plot Size (15 ft)	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		

Herb Stratum Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status
1 Solanum tuberosum	80	Y	NI
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	80 = Total Cover		

Woody Vine Stratum Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	16	40
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	0 (A)		0 (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)
The sample site is dominated by cultivated potatoes.

SOIL   **Sampling Point:**   WA004b1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (In.)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type*	Loc**		
0-5	Hue_10YR	3/2	100					LS	
5-21	Hue_10YR	5/6	100					LS	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:**

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Dark Surface (S7) (**LRR R, MLRA**

- [ ] Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- [ ] Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- [ ] Loamy Mucky Mineral (F1) (**LRR K, L**)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

- [ ] 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- [ ] Coast Prairie Redox (A16) (**LRR K, L, R**)
- [ ] 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- [ ] Dark Surface (S7) (**LRR K, L**
- [ ] Polyvalue Below Surface (S8) (**LRR K, L**)
- [ ] Thin Dark Surface (S9) (**LRR K, L**)
- [ ] Iron-Manganese Masses (F12) (**LRR K, L, R**)
- [ ] Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- [ ] Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- [ ] Red Parent Material (F21)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present?   N

Remarks:

Soil is two layers of loamy sand, which does not meet any hydric soil indicators. The sample was taken in between potato mounds.