

# WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Hubbard Sampling Date: 2015-07-02  
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: HUC5034\_200b1U  
 Investigator(s): BEH/BCS Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Side Slope Local Relief (concave, convex, none): VL Slope (%): 3-7  
 Subregion (LRR or MLRA): LRR K Latitude: 47.1853721 Longitude: -95.12882341 Datum: Minnesota State ...  
 Soil Map Unit Name: 526C NWI Classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

|                                                                                                                                    |           |                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present?                                                                                                    | <u>No</u> | <b>Is the Sampled Area</b><br><b>within a Wetland?</b><br>If yes, optional Wetland Site ID: _____ |
| Hydric Soil Present?                                                                                                               | <u>No</u> |                                                                                                   |
| Wetland Hydrology Present?                                                                                                         | <u>No</u> |                                                                                                   |
| Remarks: (Explain alternative procedures here or in a separate report.)<br>Upland sample point located in a mesic hardwood forest. |           |                                                                                                   |

## HYDROLOGY

| Wetland Hydrology Indicators:                                                                                                                                                                                                   |                                                                     | Secondary Indicators (minimum of two required)                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------|--|
| Primary Indicators (minimum of one is required; check all that apply)                                                                                                                                                           |                                                                     |                                                                    |  |
| <input type="checkbox"/> Surface Water (A1)                                                                                                                                                                                     | <input type="checkbox"/> Water-Stained Leaves (B9)                  | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |
| <input type="checkbox"/> High Water Table (A2)                                                                                                                                                                                  | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Drainage Patterns (B10)                   |  |
| <input type="checkbox"/> Saturation (A3)                                                                                                                                                                                        | <input type="checkbox"/> Marl Deposits (B15)                        | <input type="checkbox"/> Moss Trim Lines (B16)                     |  |
| <input type="checkbox"/> Water Marks (B1)                                                                                                                                                                                       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Sediment Deposits (B2)                                                                                                                                                                                 | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |
| <input type="checkbox"/> Drift Deposits (B3)                                                                                                                                                                                    | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)                                                                                                                                                                                | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted/Stressed Plants (D1)              |  |
| <input type="checkbox"/> Iron Deposits (B5)                                                                                                                                                                                     | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)                                                                                                                                                              | <input type="checkbox"/> Other (Explain in Remarks)                 | <input type="checkbox"/> Shallow Aquitard (D3)                     |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)                                                                                                                                                                |                                                                     | <input type="checkbox"/> Microtopographic Relief (D4)              |  |
|                                                                                                                                                                                                                                 |                                                                     | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |
| <b>Field Observations:</b><br>Surface Water Present? <u>No</u> Depth (inches) _____<br>Water Table Present? <u>No</u> Depth (inches) _____<br>Saturation Present? <u>No</u> Depth (inches) _____<br>(includes capillary fringe) |                                                                     | <b>Wetland Hydrology Present?</b> <u>No</u>                        |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:                                                                                                                      |                                                                     |                                                                    |  |
| Remarks:<br>No primary or secondary wetland hydrology indicators were observed.                                                                                                                                                 |                                                                     |                                                                    |  |

**VEGETATION - Use scientific names of plants.**

Sampling Point: HUC5034\_...

|                                                                                                                                                                              |                              | Absolute<br>% Cover | Dominant<br>Species? | Indicator<br>Status |                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|----------------------|---------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Tree Stratum</b> (Plot Size: <u>30'</u> )                                                                                                                                 |                              |                     |                      |                     | <b>Dominance Test worksheet:</b>                                                                               |
| 1.                                                                                                                                                                           | <u>Populus tremuloides</u>   | <u>55.00</u>        | <u>Yes</u>           | <u>FACU</u>         | Number of Dominant Species                                                                                     |
| 2.                                                                                                                                                                           | <u>Quercus macrocarpa</u>    | <u>15.00</u>        | <u>No</u>            | <u>FACU</u>         | That Are OBL, FACW, or FAC: <u>1</u> (A)                                                                       |
| 3.                                                                                                                                                                           | <u>Acer rubrum</u>           | <u>10.00</u>        | <u>No</u>            | <u>FAC</u>          | Total Number of Dominant                                                                                       |
| 4.                                                                                                                                                                           |                              | <u>5.00</u>         | <u>No</u>            | <u>FACU</u>         | <u>4</u>                                                                                                       |
| 5.                                                                                                                                                                           |                              |                     |                      |                     | Species Across All Strata: _____ (B)                                                                           |
| 6.                                                                                                                                                                           | <u>Betula papyrifera</u>     |                     |                      |                     | Percent of Dominant Species                                                                                    |
| 7.                                                                                                                                                                           |                              |                     |                      |                     | <u>25</u>                                                                                                      |
|                                                                                                                                                                              |                              |                     |                      |                     | That Are OBL, FACW, or FAC: _____ (A/B)                                                                        |
|                                                                                                                                                                              |                              | <u>85</u>           | = Total Cover        |                     | <b>Prevalence Index worksheet:</b>                                                                             |
| <b>Sapling/Shrub Stratum</b> (Plot Size: <u>15'</u> )                                                                                                                        |                              |                     |                      |                     | <b>Total % Cover of:</b>                                                                                       |
| 1.                                                                                                                                                                           | <u>Acer saccharum</u>        | <u>35.00</u>        | <u>Yes</u>           | <u>FACU</u>         | <b>Multiply by:</b>                                                                                            |
| 2.                                                                                                                                                                           | <u>Fraxinus nigra</u>        | <u>10.00</u>        | <u>Yes</u>           | <u>FACW</u>         | OBL species <u>0.00</u> x 1 <u>0</u>                                                                           |
| 3.                                                                                                                                                                           | <u>Corylus cornuta</u>       | <u>5.00</u>         | <u>No</u>            | <u>FACU</u>         | FACW species <u>20.00</u> x 2 <u>40</u>                                                                        |
| 4.                                                                                                                                                                           |                              |                     |                      |                     | FACU species <u>15.00</u> x 3 <u>540</u>                                                                       |
| 5.                                                                                                                                                                           |                              |                     |                      |                     | UPL species <u>70.00</u> x 4 <u>350</u>                                                                        |
| 6.                                                                                                                                                                           |                              |                     |                      |                     | Column Totals <u>240</u> (A) <u>975</u> (B)                                                                    |
| 7.                                                                                                                                                                           |                              |                     |                      |                     | Prevalence Index = B/A = <u>4.0625</u>                                                                         |
|                                                                                                                                                                              |                              | <u>50</u>           | = Total Cover        |                     | <b>Hydrophytic Vegetation Indicators:</b>                                                                      |
| <b>Herb Stratum</b> (Plot Size: <u>5'</u> )                                                                                                                                  |                              |                     |                      |                     | _____ 1 - Rapid Test for Hydrophytic Vegetation                                                                |
| 1.                                                                                                                                                                           | <u>Eurybia macrophylla</u>   | <u>50.00</u>        | <u>Yes</u>           | <u>UPL</u>          | <u>no</u> 2 - Dominance Test is > 50%                                                                          |
| 2.                                                                                                                                                                           | <u>Carex pensylvanica</u>    | <u>20.00</u>        | <u>No</u>            |                     | <u>no</u> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>                                                           |
| 3.                                                                                                                                                                           | <u>Fraxinus nigra</u>        | <u>10.00</u>        | <u>No</u>            | <u>FACW</u>         | _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)   |
| 4.                                                                                                                                                                           | <u>Maianthemum canadense</u> | <u>10.00</u>        | <u>No</u>            | <u>FACU</u>         | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                      |
| 5.                                                                                                                                                                           | <u>Aralia nudicaulis</u>     | <u>5.00</u>         | <u>No</u>            | <u>FACU</u>         | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 6.                                                                                                                                                                           | <u>Galium boreale</u>        | <u>5.00</u>         | <u>No</u>            | <u>FAC</u>          | <b>Definitions of Vegetation Strata:</b>                                                                       |
| 7.                                                                                                                                                                           | <u>Sanicula marilandica</u>  | <u>5.00</u>         | <u>No</u>            | <u>FACU</u>         | <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.    |
| 8.                                                                                                                                                                           |                              |                     |                      |                     | <b>Sapling/Shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.       |
| 9.                                                                                                                                                                           |                              |                     |                      |                     | <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  |
| 10.                                                                                                                                                                          |                              |                     |                      |                     | <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                                           |
| 11.                                                                                                                                                                          |                              |                     |                      |                     |                                                                                                                |
| 12.                                                                                                                                                                          |                              |                     |                      |                     |                                                                                                                |
|                                                                                                                                                                              |                              | <u>105</u>          | = Total Cover        |                     |                                                                                                                |
| <b>Woody Vine Stratum</b> (Plot Size: _____)                                                                                                                                 |                              |                     |                      |                     | <b>Hydrophytic Vegetation Present?</b> _____                                                                   |
| 1.                                                                                                                                                                           |                              |                     |                      |                     |                                                                                                                |
| 2.                                                                                                                                                                           |                              |                     |                      |                     |                                                                                                                |
| 3.                                                                                                                                                                           |                              |                     |                      |                     |                                                                                                                |
| 4.                                                                                                                                                                           |                              |                     |                      |                     |                                                                                                                |
|                                                                                                                                                                              |                              | <u>0</u>            | =Total Cover         |                     |                                                                                                                |
| <b>Remarks:</b> (include photo numbers here or on a separate sheet.)                                                                                                         |                              |                     |                      |                     |                                                                                                                |
| The sample point is dominated by quaking aspen in the canopy. Sugar maple and black ash saplings dominate the sapling layer. Ground cover is predominantly large-leaf aster. |                              |                     |                      |                     |                                                                                                                |

SOIL

Sampling Point: HUC5034\_...

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

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-4               | 10YR 2 1      | 100 |                |   |                   |                  | SL      |         |
| 4-24              | 10YR 5 4      | 100 |                |   |                   |                  | S       |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
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|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ 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 149B)

☐ 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)

Indicators for Problematic Hydric Soil<sup>3</sup>:

☐ 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, M)

☐ Polyvalue Below Surface (S8) (LRR K, L)

☐ Thin Dark Surface (S9) (LRR K, L)

☐ Iron-Maganese 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)

Restrictive Layer (if observed):

☐

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? No \_\_\_\_\_

Remarks:

Soil is dark sandy loam underlain by brown sand; the profile does not meet a hydric soil indicator.