

APPENDIX C
REPRESENTATIVE WETLANDS DATA FORMS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CANTON MTN City/County: CANTON / OXFORD Sampling Date: 8/3/10
Applicant/Owner: PATRIOT RENEWABLES State: ME Sampling Point: WET
Investigator(s): R. KELSHAW, D. BRENNEMAN Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): CONCAVE
Slope (%): 2 Lat: E 393518.37A Long: N 4927806.79 Datum: UTM NAD 1983 N
Soil Map Unit Name: NWI classification: PFO1, PJS1, PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology 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? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No
If yes, optional Wetland Site ID: CAWBK12
Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Field Observations: Surface Water Present? Yes X No Depth (inches): 24" + (VARIES THROUGHOUT)
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: STREAM (LUDDEN BROOK) OVER TOP OF BANKS DUE TO BEAVER ACTIVITY. SEVERAL DAMS SEEN, ALSO, SLIDES AND FRESH BITE MARKS ON TREES. OLD & NEW

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' R)	Absolute % Cover	Dominant Species?	Indicator Status
1. ACE RLB	75	X	FAC
2.			
3.			
4.			
5.			
6.			
7.			
75 = Total Cover ^{37.5} / ₁₅			
Sapling/Shrub Stratum (Plot size: 15' R)	Absolute % Cover	Dominant Species?	Indicator Status
1. ACE RLB	20	X	FAC
2. CLM AME	10	X	FACW
3. ILE VER	5		
4.			
5.			
6.			
7.			
35 = Total Cover ^{17.5} / ₇			
Herb Stratum (Plot size: 5' R)	Absolute % Cover	Dominant Species?	Indicator Status
1. CAR INTINTH	50	X	FACW
2. ONO SEN	40	X	FACW
3. CAR CRI	20		
4. OLY CAN	10		
5. IMP CAP	10		
6. CAR SCO	5		
7. BDE CYL (FALSE NETTLE)	5		
8. THA PDL (TALL MEADOW RUE)	5		
9. GAL ODR	5		
10. AST UMB (FLAT TOP DASTER)	T		
11. GLY GRA	T		
12. SPI CAT	T		
POL SAG (TEAR THUMB) T			
REB HIS T			
150 = Total Cover ⁷⁵ / ₃₆			
Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE OBSERVED			
2.			
3.			
4.			
= Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No

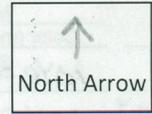
Remarks: (Include photo numbers here or on a separate sheet.)

SEE \neq SKETCH ON BACK PAGE

SKETCH

Wetland ID: CAW8K12

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



DISREGARD !!
SKETCH ..

SEE ATTACHED
PAGE FOR
SKETCH

LOWEN BRK

SHARPEY BORNARY

350002 20211

LOWEN LAKE

WINDEN LN

FLAG STOP

WET PLOT

WET PLOT

34546

34545

34546

34545

52

51.5

42

41

WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____) NOT KNOWN
- contains SWH (identify type: _____) NOT KNOWN
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone (MOST LIKELY; NEEDS VERIFICATION)
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: CANTON MTN City/County: CANTON/OXFORD Sampling Date: 8/3/2010
Applicant/Owner: Investigator(s): K. KESHAU, D. BRENNEMAN Section, Township, Range:
Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): CONVEX
Slope (%): 0 Lat: E 393519.43 Long: N 4927792.48 Datum: UTM Meters
Soil Map Unit Name: N/A NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
Are Vegetation, Soil, or Hydrology 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? Yes No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes No
Is the Sampled Area within a Wetland? Yes No [X]
If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: NONE OBSERVED
Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B15)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3)
Drift Deposits (B3) Presence of Reduced Iron (C4)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)
Iron Deposits (B5) Thin Muck Surface (C7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes No [X] Depth (inches):
Water Table Present? Yes No [X] Depth (inches):
Saturation Present? (includes capillary fringe) Yes No [X] Depth (inches):
Wetland Hydrology Present? Yes No [X]

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. ACE RUB	90	X	FAC
2. TSU CAN	25	X	FACU
3. PIN STR	5		FACU
4.			
5.			
6.			
7.			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Sapling/Shrub Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. ABI BAL	10	X	FAC
2. COR COR	5	X	FACU
3. FAG GRA	5	X	FACU
4.			
5.			
6.			
7.			

Prevalence Index worksheet:

Total % Cover of: 120 = Total Cover 60
 Multiply by: 24

OBL species 1 x 1 = 1

FACW species 25 x 2 = 50

FAC species 120 x 3 = 360

FACU species 10 x 4 = 40

UPL species 5 x 5 = 25

Column Totals: 360 (A) 50 (B)

Prevalence Index = B/A = 0.14

Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. DSM CIN	25	X	FACW
2. ANT FIB-FEM	20	X	FAC
3. QUERUB	20	X	FACU
4. CAREX JP (NEED ID)	15		
5. MAI CAN	10		FAC
6. TRI BOR	5		FAC
7. VID PCB	5		FACU
8. ACERUB	T		FAC
9. VIB DEN	T		FAC
10. ACE DEN	T		FACU
11. AST INF	T		
12.			

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE OBS			
2.			
3.			
4.			
	<u>105</u>	= Total Cover	<u>52.5</u> <u>21</u>

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? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-0	5YR 3/3	10	—	—	—	—	—	FIBRIC
0-7	10YR 5/6	90	7.5YR 5/8	10	C ₄	M	FSL	
7-9	10YR 2/1	100	—	—	D	—	FSL	
9-12	2.5Y 6/3	—	7.5YR 5/6	—	C	M	FSL	
12-20 ⁺	2.5Y 6/4	90	7.5YR 5/8	20	C	M	FSL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

NONE OBS

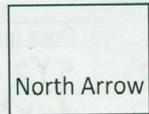
Hydric Soil Present? Yes _____ No

Remarks:

SKETCH

Wetland ID:

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



SEE ATTACHED SHEET FOR SKETCH

WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

N/A

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mt. City/County: Canton/Oxford Sampling Date: 8-5-10
 Applicant/Owner: Patriot Renewables State: ME Sampling Point: Wet
 Investigator(s): R. Kelsaw, S. Allen Section, Township, Range: —
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave
 Slope (%): 0-3 Lat: E 393580 Long: 492899.27 Datum: W83m Meters
 Soil Map Unit Name: N/A NWI classification: PFO1

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

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.)		

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 checked="" 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 checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input checked="" 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 or Stressed Plants (D1)
<input checked="" type="checkbox"/> Iron Deposits (B5)	<input checked="" 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)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. ACE Rub	40	X	FAC
2. TSU Can	20	X	FACU
3. Abi Gal	17	X	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

77 = Total Cover

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. ACE RUB	15	X	FAC
2. TSU Can	12	X	FACU
3. Bet All	8	X	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

35 = Total Cover

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Osm Cir	50	X	FACW
2. Ono Sen	35	X	FACW
3. Rub Pub	15	_____	_____
4. luc Uni	13	_____	_____
5. Cop Gro	13	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

126 = Total Cover

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

_____ = Total Cover

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

____ Prevalence Index is ≤3.0¹

____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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.

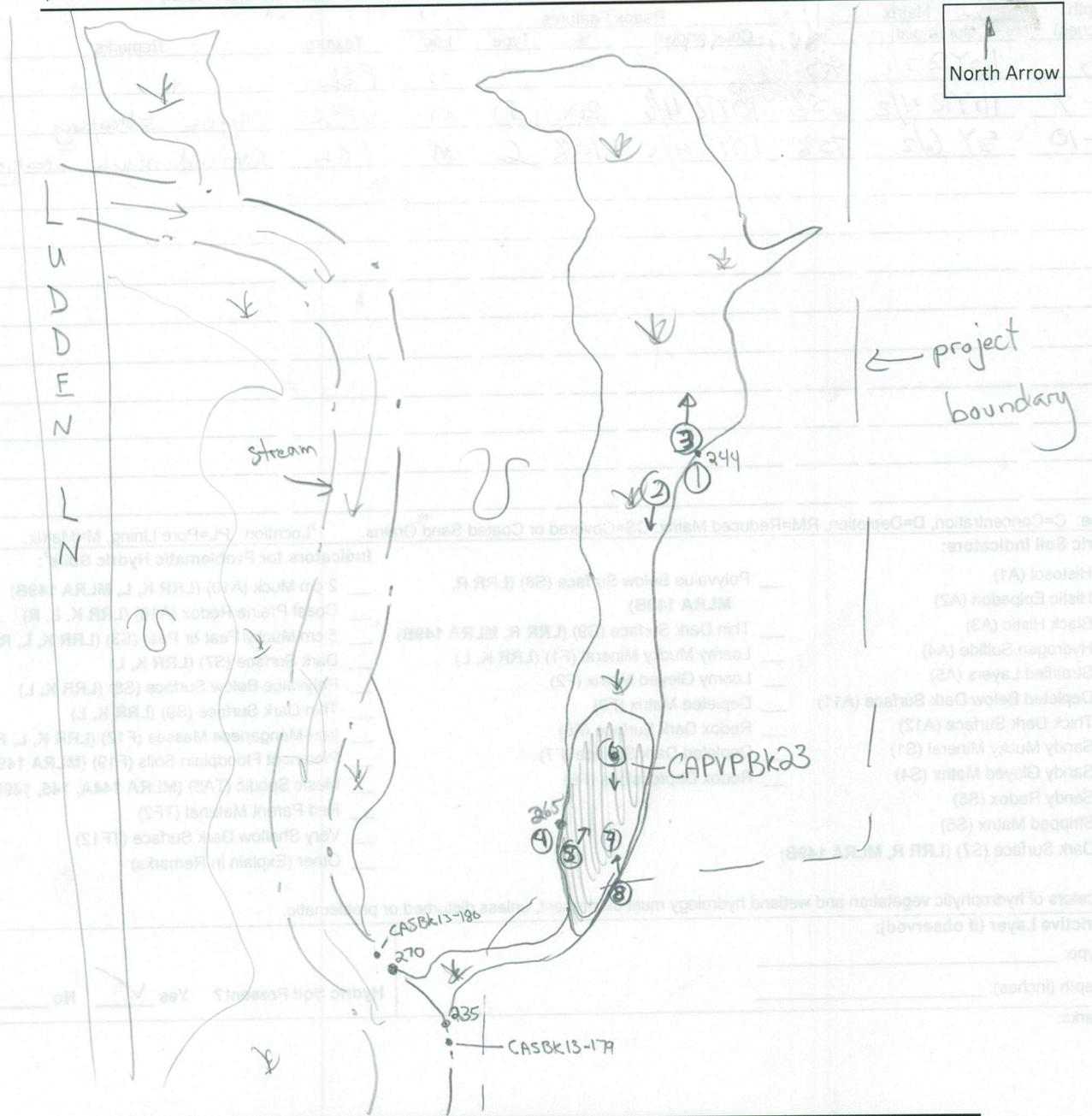
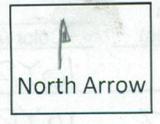
Hydrophytic Vegetation Present? Yes _____ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

EMETERY

SKETCH
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)

Wetland ID: CAWBK12(2)W



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- UNK within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- UNK contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- UNK is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- UNK within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain City/County: Canton/Oxford Sampling Date: 8-5-10
 Applicant/Owner: Patriot Renewables State: ME Sampling Point: Upland
 Investigator(s): R. Kelso S. Allen Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None
 Slope (%): 20% Lat: E 393608.7 Long: N 4928986.3 Datum: UTM meters
 Soil Map Unit Name: _____ NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Upland Plot</u>	

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"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Microtopographic Relief (D4)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
None observed

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Tsu Can</u>	<u>85</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>ACE Rub</u>	<u>15</u>		
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

100 = Total Cover

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Tsu Can</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

15 = Total Cover

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>upland moss</u>	<u>10%</u>		
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

_____ = Total Cover

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			

_____ = Total Cover

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is $\leq 3.0^1$

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes _____ No

Remarks: (Include photo numbers here or on a separate sheet.)

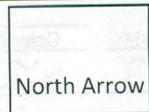
SKETCH

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)

Wetland ID: CAWBK12(2)

CAWBK12(2)

See wetland sketch CAWBK12



Data taken in upland plot

WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- UNK within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- UNK contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- UNK is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- UNK within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain City/County: Canton/Oxford Sampling Date: 2010-8-3
Applicant/Owner: Patriot Renewables State: ME Sampling Point: W
Investigator(s): RK, DB, JB Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave
Slope (%): >10% Lat: E 393621.918 Long: N 4928233.431 Datum: UTM meters
Soil Map Unit Name: N/A NWI classification: PFO1/PEM1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
Are Vegetation, Soil, or Hydrology 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? Yes [X] No
Hydric Soil Present? Yes [X] No
Wetland Hydrology Present? Yes [X] No
Is the Sampled Area within a Wetland? Yes [X] No
Remarks: (Explain alternative procedures here or in a separate report.)
Spring on sideslope w/ narrow swale spillway

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply):
[X] Surface Water (A1) [X] Water-Stained Leaves (B9)
[X] High Water Table (A2) [X] Aquatic Fauna (B13)
[X] Saturation (A3) [X] Marl Deposits (B15)
[X] Surface Soil Cracks (B6)
[X] Drainage Patterns (B10)
[X] Moss Trim Lines (B16)
[X] Dry-Season Water Table (C2)
[X] Crayfish Burrows (C8)
[X] Saturation Visible on Aerial Imagery (C9)
[X] Stunted or Stressed Plants (D1)
[X] Geomorphic Position (D2)
[X] Shallow Aquitard (D3)
[X] Microtopographic Relief (D4)
[X] FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes [X] No Depth (inches): 0"
Water Table Present? Yes [X] No Depth (inches): 0"
Saturation Present? Yes [X] No Depth (inches): 0"
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. /			
2. /			
3. /			
4. /			
5. /			
6. /			
7. /			
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. /			
2. /			
3. /			
4. /			
5. /			
6. /			
7. /			
_____ = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Dry sp</u>	<u>45</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Gly obt</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>
3. <u>Car cri</u>	<u>18</u>	<input checked="" type="checkbox"/>	<u>OBL</u>
4. <u>Ast panicul</u>	<u>7</u>		
5. <u>Rub pub</u>	<u>5</u>		
6. <u>Bet all</u>	<u>5</u>		<u>FAC</u>
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			
<u>80</u> = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. /			
2. /			
3. /			
4. /			
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes _____ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

emergent (herb+forb dominated) swale on forested sideslope ± 30' x 3'w
 Modified plot to fit wetland
 -no tree stratum
 -no shrub stratum
 -elongate herb stratum

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2-0	7.5YR2.5/1	100					O: fibric	free H ₂ O @ +2"
0-4	7.5YR2.5/1	100					mucky st sil	"
4-10 ⁺	10YR4/4	85	7.5YR4/6	15	C	M	st sil	pit full of H ₂ O cannot tell colors

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | | | | |
|---|--|--|---|--|--|
| Hydric Soil Indicators: | | | Indicators for Problematic Hydric Soils³: | | |
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) | | | |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) | | | |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) | | | |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) | | | |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) | | | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) | | | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) | | | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) | | | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) | | | |
| <input type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (TF2) | | | |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) | | | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input checked="" type="checkbox"/> Other (Explain in Remarks) | | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: N/O
 Depth (inches): _____

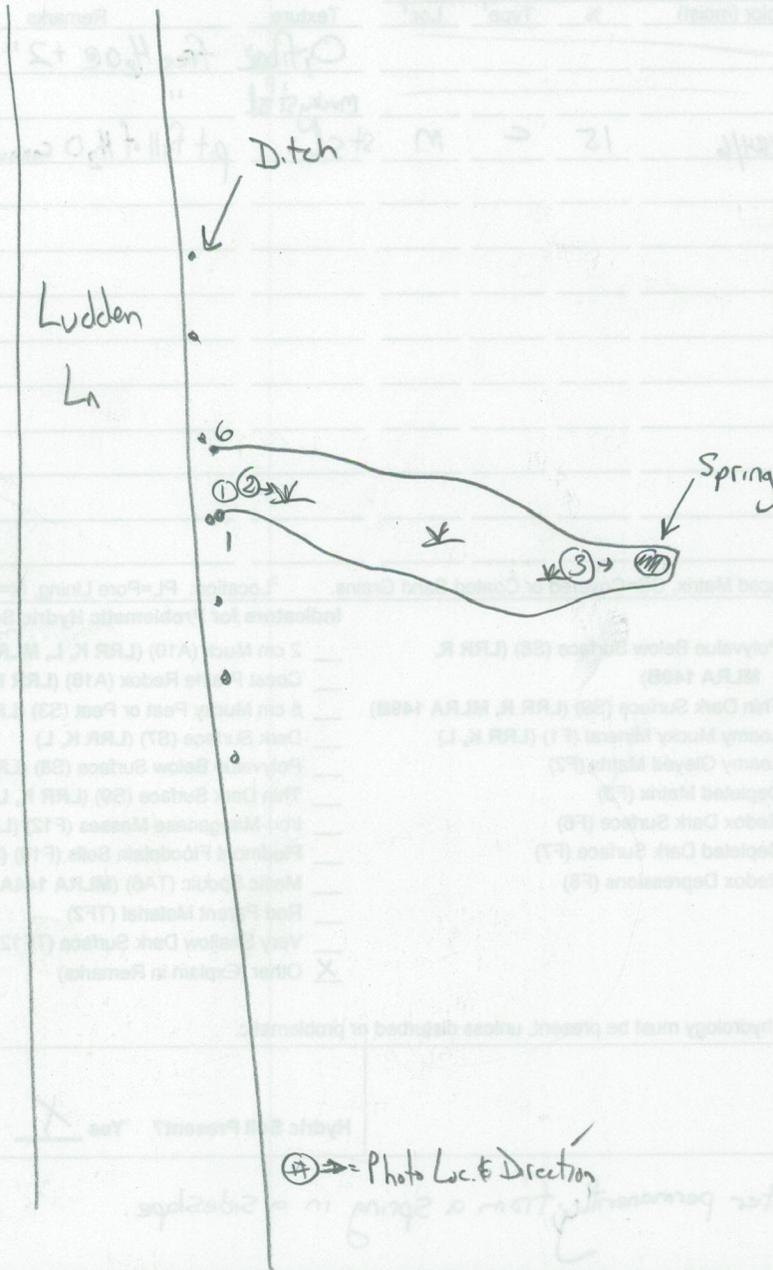
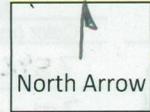
Hydric Soil Present? Yes No

Remarks:
 OTHER - Oxygenated flowing water permanently from a spring in a sideslope.

SKETCH

Wetland ID: CAWBK15

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

None Observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain City/County: Canton/Oxford Sampling Date: 2010-8-4
Applicant/Owner: Patriot Renewables State: ME Sampling Point: W
Investigator(s): RK, DB, JB Section, Township, Range:
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave
Slope (%): ~10% Lat: E 393670.47 Long: N 4928390.6 Datum: UTM meters
Soil Map Unit Name: N/A NWI classification: PFO1/PEM1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
Are Vegetation, Soil, or Hydrology 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? Yes [X] No
Hydric Soil Present? Yes [X] No
Wetland Hydrology Present? Yes [X] No
Is the Sampled Area within a Wetland? Yes [X] No
If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply):
[X] Saturation (A3)
Secondary Indicators (minimum of two required):
[X] Surface Soil Cracks (B6)
[X] Drainage Patterns (B10)

Field Observations:
Surface Water Present? Yes No [X] Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Gly obt</u>	<u>28</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Osm cin</u>	<u>8</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Ono sen</u>	<u>4</u>	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>40%</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				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? Yes <input checked="" type="checkbox"/> No _____				

Remarks: (Include photo numbers here or on a separate sheet.)

narrow side slope seep that is in a forested landscape however no trees growing in wetland, branches overhanging from upland

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2-0	7.5YR2.5/1	100					fibric	
0-2	7.5YR2.5/1	100					mucky sil	fri
2-8	2.5Y3/1	70	5Y7/1 10YR4/6	25/5	D/C	M	stlfs	fri, mass H ₂ Oe 5"
8-15 ⁺	10YR4/3	60	2.5Y3.6/3 7.5Y4/4	30/10	D/C	M	stlfs	" "

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

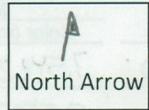
Restrictive Layer (if observed):

Type: N/A
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Ludden Ln
Ln

Connect to roadside ditch

← project boundary

WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

None Observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain City/County: Canton/Oxford Sampling Date: 2010-8-4
Applicant/Owner: Patriot Renewables State: ME Sampling Point: W
Investigator(s): RK, DB, JB Section, Township, Range:
Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): Concave
Slope (%): ~8% Lat: E 393487.06 Long: 4928830 Datum: UTM METERS
Soil Map Unit Name: N/A NWI classification: PSS1/PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
Are Vegetation, Soil, or Hydrology 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? Yes [X] No
Hydric Soil Present? Yes [X] No
Wetland Hydrology Present? Yes [X] No
Is the Sampled Area within a Wetland? Yes [X] No
Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

Field Observations:
Surface Water Present? Yes [X] No Depth (inches): .5"
Water Table Present? Yes [X] No Depth (inches): +0"
Saturation Present? Yes [X] No Depth (inches): 0"
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'r</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Ace rub</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2.	<u>Abi bal</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3.	<u>Bet all</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
4.				
5.				
6.				
7.				
		<u>100</u> = Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'r</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Aln inc</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2.	<u>Bet all</u>	<u>45</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3.	<u>Ace rub</u>	<u>5</u>		
4.				
5.				
6.				
7.				
		<u>100</u> = Total Cover		
Herb Stratum (Plot size: <u>5'r</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Cal can</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2.	<u>Imp cap</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
3.	<u>Ono sen</u>	<u>15</u>		<u>FACW</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100</u> = Total Cover		
Woody Vine Stratum (Plot size: _____)		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	5YR2.5/2	100					mucky lbs	Saturated e ₀ "
4-8	7.5YR3/2	100					"	
8-30*	7.5YR3/2	95	7.5YR5/6	5	C	PL	st mucky lbs	massive

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input checked="" type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: N/O
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

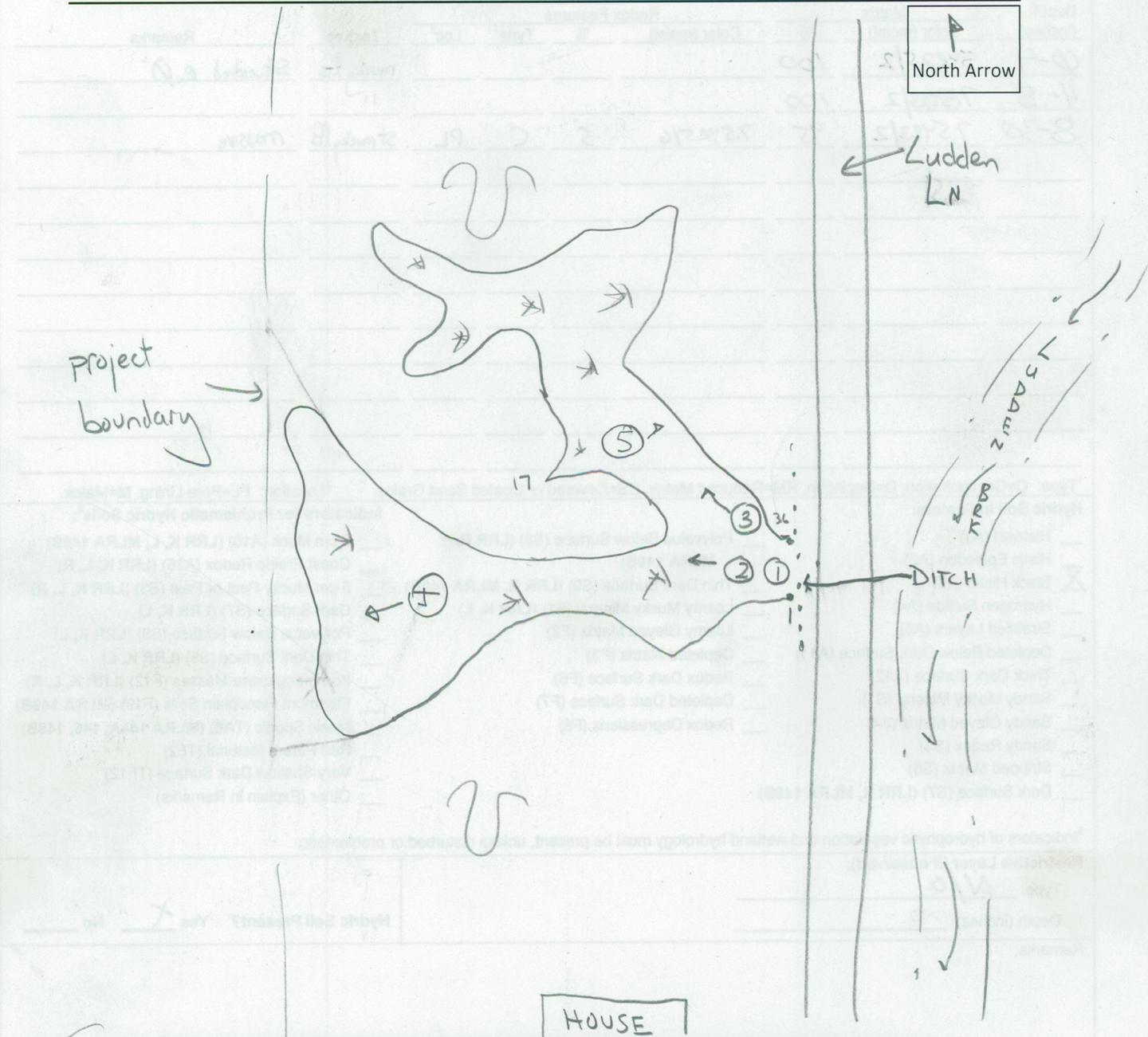
HOUSE

WORS (check all that apply) write LURK for unknown)
 contains an S1 or S2 Community (identify) _____
 contains SWH (identify type) _____
 within 250 feet of a coastal wetland _____
 within 250 feet of the normal high water line, and within the same watershed, of _____
 any lake or pond classified as GPA under 38 M.R.S.A. § 405-A _____
 contains at least 30,000 square feet of aquatic vegetation, emergent marsh _____
 vegetation or open water, unless result of an artificial pond or impoundment _____
 within FEMA floodzone _____
 is or contains peatlands, except that the department may determine that a _____
 previously mined peatland, or portion thereof, is not a wetland of special _____
 significance _____
 within 25 feet of a river, stream or brook _____

SKETCH

Wetland ID: CAWBK20

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

None Observed

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8/9/2010
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: WET
Investigator(s): D. BRENNEMAN Section, Township, Range: - Canton, ME - DIXFIELD, ME
Landform (hillslope, terrace, etc.): TOE OF SLOPE Local relief (concave, convex, none): CONCAVE
Slope (%): 1-10% Lat: SEE GPS DATA Long: Datum: UTM M 19N NAD 1983
Soil Map Unit Name: NWI classification: PFO 1/4, PEM2

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
Are Vegetation, Soil, or Hydrology 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? Yes [X] No
Hydic Soil Present? Yes [X] No
Wetland Hydrology Present? Yes [X] No
Is the Sampled Area within a Wetland? Yes [X] No
If yes, optional Wetland Site ID: CAW581
Remarks: EMERGENT AREA ALONG ROAD SHOWS EVIDENCE OF BEING USED AS A "LOGGING LANDING" AREA, OLD PILES OF SLASH IN

HYDROLOGY

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

Field Observations:
Surface Water Present? Yes [X] No Depth (inches): 6"
Water Table Present? Yes [X] No Depth (inches): 6"
Saturation Present? Yes [X] No Depth (inches): 0
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. <u>NONE OBS</u>	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>SAL BEB</u>	<u>5</u>	<u>X</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
_____ = Total Cover			
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>SCI CYP</u>	<u>50</u>	<u>X</u>	<u>FACW</u>
2. <u>CAP WIR</u>	<u>80</u>	<u>X</u>	<u>OBL</u>
3. <u>JUN EFF</u>	<u>25</u>	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
<u>155</u> = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>NONE OBS</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

_____ Dominance Test is >50%

_____ Prevalence Index is ≤3.0¹

_____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)

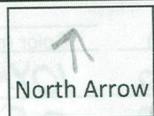
SKETCH

Wetland ID: CAM 881

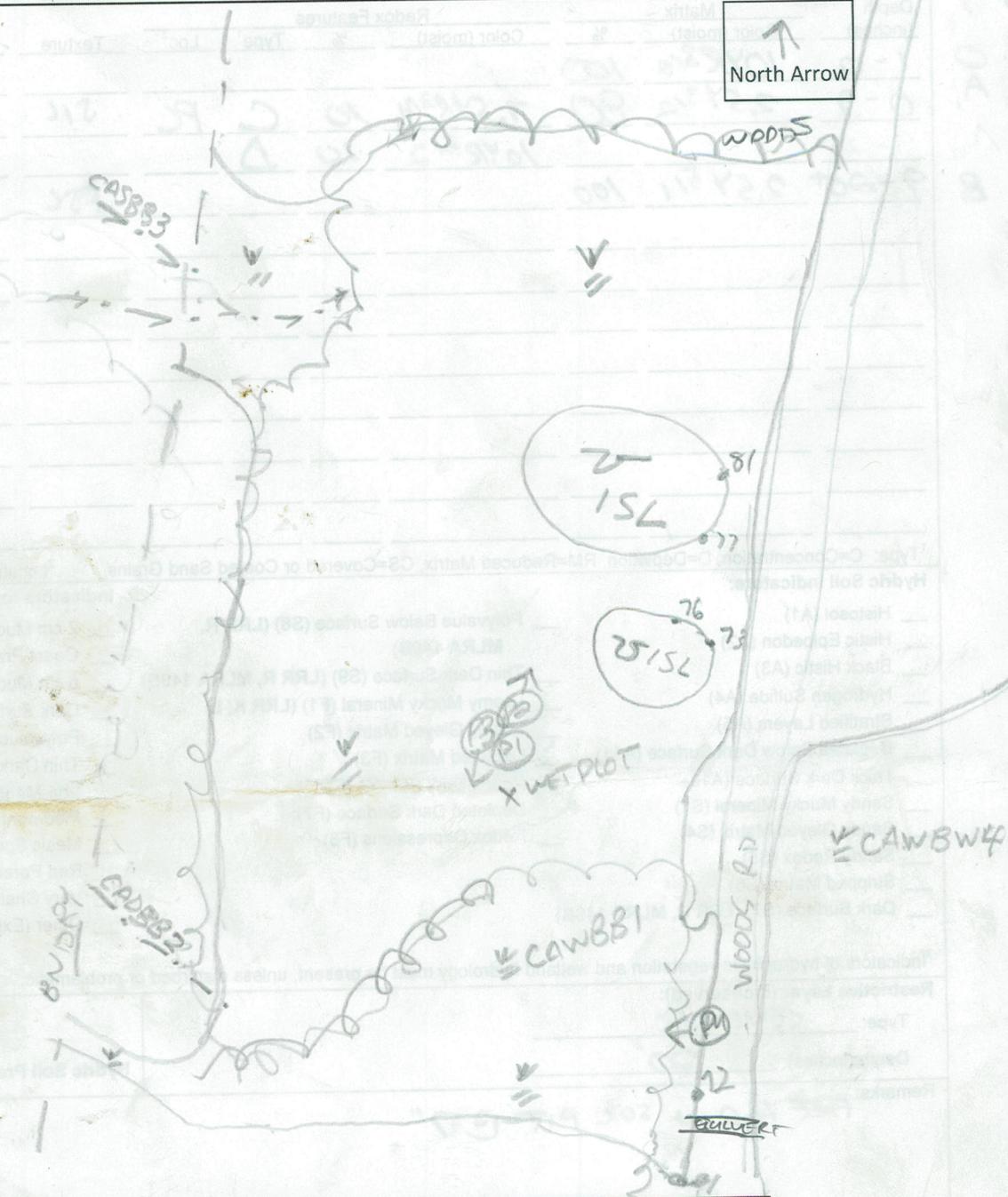
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)

LAGS

- 1 START @ RD
- 4 END @ 00
- 0 ST @ P
- 18 END @ P
- 19 ST @ P
- 22 END @ P TO 1
- 73 START @ ISL
- 76 END @ ISL @ PCT 70 73
- 79 START @ ISL
- 81 END @ PCT 70 77



- 1 ID
- 2 FAC NE
- 3 FAC SW
- 4 FAC E



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- NO within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- NO contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- NO is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- X within 25 feet of a river, stream or brook

WAS FLOODED @ SPRING HIGH FROM BEAVER ACTIVITY CONNECTING FT. CAWBW4 AND CAWBB1 OVER ROAD.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8.10.10
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: ✓
Investigator(s): H5W Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
Slope (%): 0-11 Lat: 394017.10 E Long: 4929815.15 N Datum: UTM, M 19N NAD 83
Soil Map Unit Name: _____ NWI classification: PSSIE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes No _____
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? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: <u>CAWBW 10</u>
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

no v data plot recorded

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
--	---

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>to surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point:

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>05</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>aln rug</u>	<u>100</u>	<u>y</u>	<u>Facwt</u>
2. <u>spi lat</u>	<u>25</u>	<u>y</u>	<u>Fac+</u>
3. <u>rub ida</u>	<u>20</u>	<u>y</u>	<u>Fac-</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>sol rug</u>	<u>20</u>	<u>y</u>	<u>Fac</u>
2. <u>the nov</u>	<u>10</u>	<u>y</u>	<u>Fac</u>
3. <u>ath fil-fem</u>	<u>10</u>	<u>y</u>	<u>Fac</u>
4. <u>ono sen</u>	<u>50</u>	<u>y</u>	<u>Facw</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/2	95					fsi	oxidized rhizospheres
	10YR 4/6	5	10YR 4/6	5	C	M	fsi	
5-15	5Y 2.5/2	80					fsi	
			7.5 4/4	20	C	M	fsi	
15-20	2.5Y 4/1	90	2.5Y 6/2	10	D	M	S	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A
 Depth (inches): N/A

Hydric Soil Present? Yes No

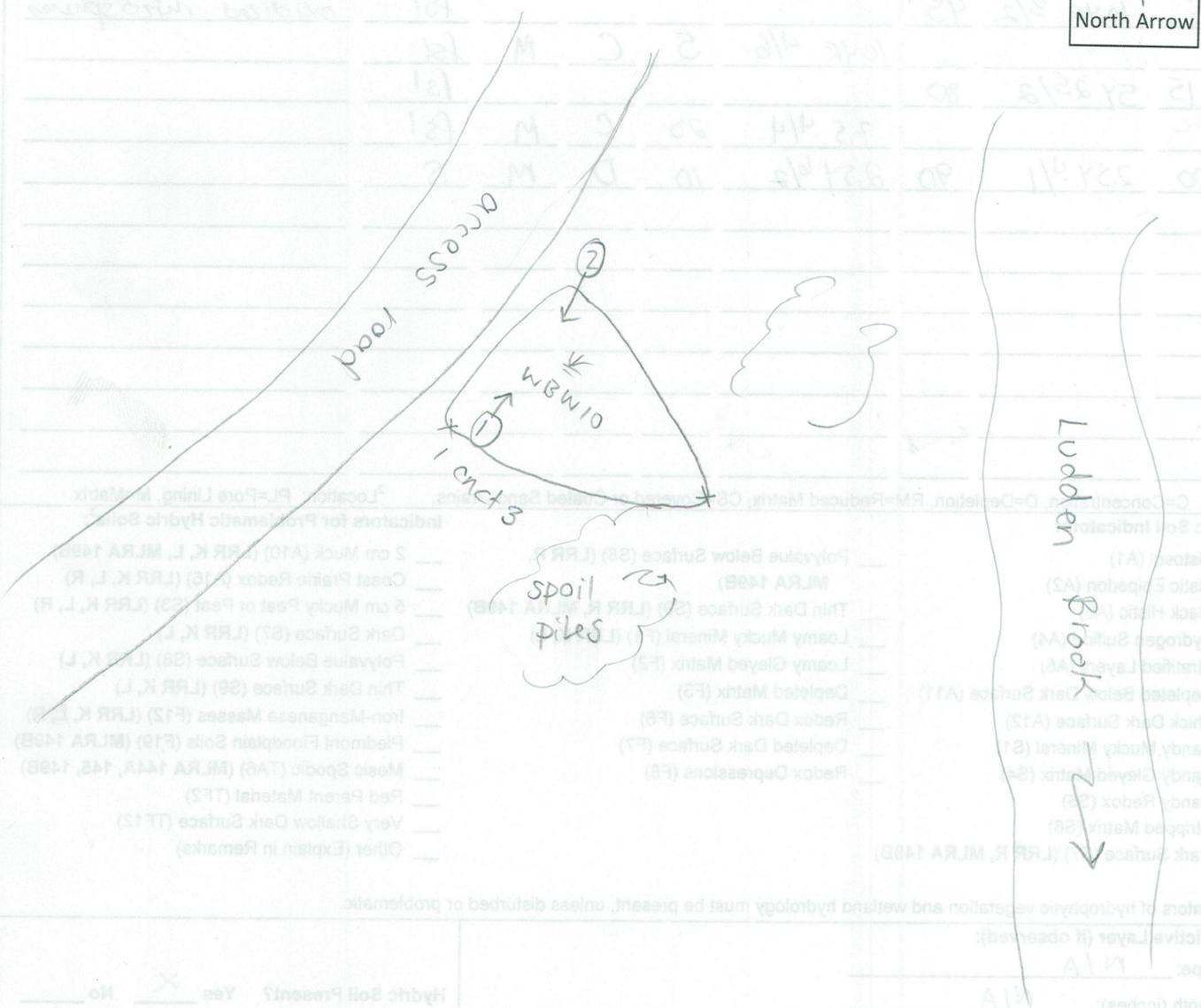
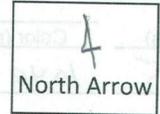
Remarks:

Soils meet VIII.A. in the Field Ind. for Identifying Hydric Soils in New Eng.

SKETCH

Wetland ID: CAWBW10

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

UNK contains an S1 or S2 Community (identify: _____)

UNK contains SWH (identify type: _____)

NO within 250 feet of a coastal wetland

NO within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.

NO contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.

UNK within FEMA floodzone

NO is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance

NO within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8.10.10
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point:
Investigator(s): HSW Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): none - basin
Slope (%): 0-11% Lat: 394105.25 E Long: 4929973.40 N Datum: UTM, M 19N NAD83
Soil Map Unit Name: NWI classification: PEM1E (Some PFORE)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [X] No
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes [X] No
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.

Table with 2 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present? and Is the Sampled Area within a Wetland? Yes [X] No []

Remarks: (Explain alternative procedures here or in a separate report.)
drains towards Ludden Brook.
no v data plot recorded

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary and Secondary) and Secondary Indicators (minimum of two required)

Field Observations:
Surface Water Present? Yes [] No [X] Depth (inches):
Water Table Present? Yes [X] No [] Depth (inches): to surface
Saturation Present? Yes [X] No [] Depth (inches): to surface
Wetland Hydrology Present? Yes [X] No []

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: 12

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>ace rub</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>ace rub</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
2. <u>fru pen</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>ono sen</u>	<u>100</u>	<u>Y</u>	<u>facw</u>
2. <u>imp cap</u>	<u>10</u>	<u>Y</u>	<u>facw</u>
3. <u>osm cin</u>	<u>10</u>	<u>Y</u>	<u>facw</u>
4. <u>cer str</u>	<u>5</u>	<u>Y</u>	<u>obl</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. <u>N/A</u>	_____	_____	_____
4. _____	_____	_____	_____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	2.5Y 3/1	100					Silo	
0-10	2.5Y 3/1	93	10YR 4/4	5	C	M	Silo	
10-12			10YR 6/1	2	D	M		
10-15	10YR 4/1	90						
			7.5Y 4/6	5	C	M	Sil ty	
			10YR 5/2	5	D	m	Sil	
15-18	2.5YR 5/1	90	7.5YR 5/3	5	C	M	Sil	
			2.5Y 6/2	5	D	M	Sil	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

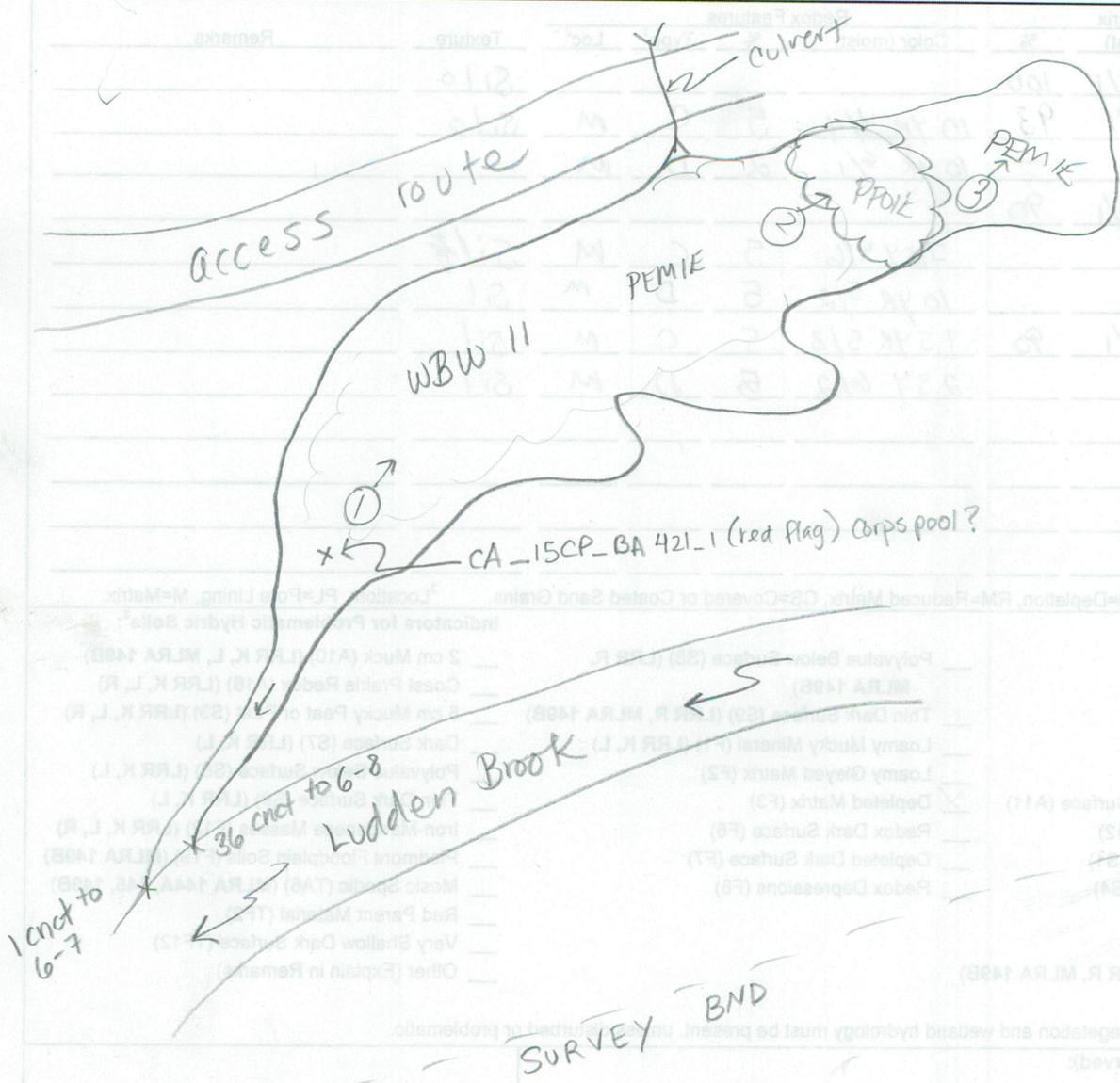
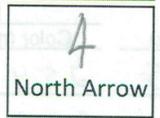
Restrictive Layer (if observed):

Type: N/A
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- NO within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- UNK contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- NO is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- YES within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8/10/10
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: WET
Investigator(s): D. BRENNEMAN Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): GRAVITY SCLOPE Local relief (concave, convex, none): CONCAVE
Slope (%): 5 Lat: (m XH) Long: Datum: PEO1
Soil Map Unit Name: NWI classification:

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

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

Table with 2 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present? and Is the Sampled Area within a Wetland? Yes/No. Includes optional Wetland Site ID field.

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary and Secondary) and Secondary Indicators (minimum of two required). Lists various indicators like Surface Water, High Water Table, etc.

Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Wetland Hydrology Present? Yes/No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>FRA NIG</u>	<u>20</u>	<u>X</u>	<u>FACW</u>
2. <u>BET ALL</u>	<u>20</u>	<u>X</u>	
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Sapling/Shrub Stratum (Plot size: 15)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>BET ALL</u>	<u>25</u>	<u>X</u>	<u>FACW</u>
2. <u>*ACE SPI (MTN MAPLE)</u>	<u>25</u>	<u>X</u>	<u>FACU</u>
3. <u>ABI BAL</u>	<u>15</u>	<u>X</u>	<u>FAC</u>
4. <u>FRA NIG</u>	<u>10</u>		
5. _____			
6. _____			
7. _____			

Herb Stratum (Plot size: 5)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>OND SEN.</u>	<u>10</u>	<u>X</u>	<u>FACW</u>
2. <u>RUB PUB</u>	<u>10</u>	<u>X</u>	
3. <u>(JACK-IN-THE-BOX)</u>	<u>5</u>	<u>X</u>	
4. <u>FRA NIGU</u>	<u>5</u>	<u>X</u>	
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

Woody Vine Stratum (Plot size: _____)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>NONE OBS</u>			
2. _____			
3. _____			
4. _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes X No _____

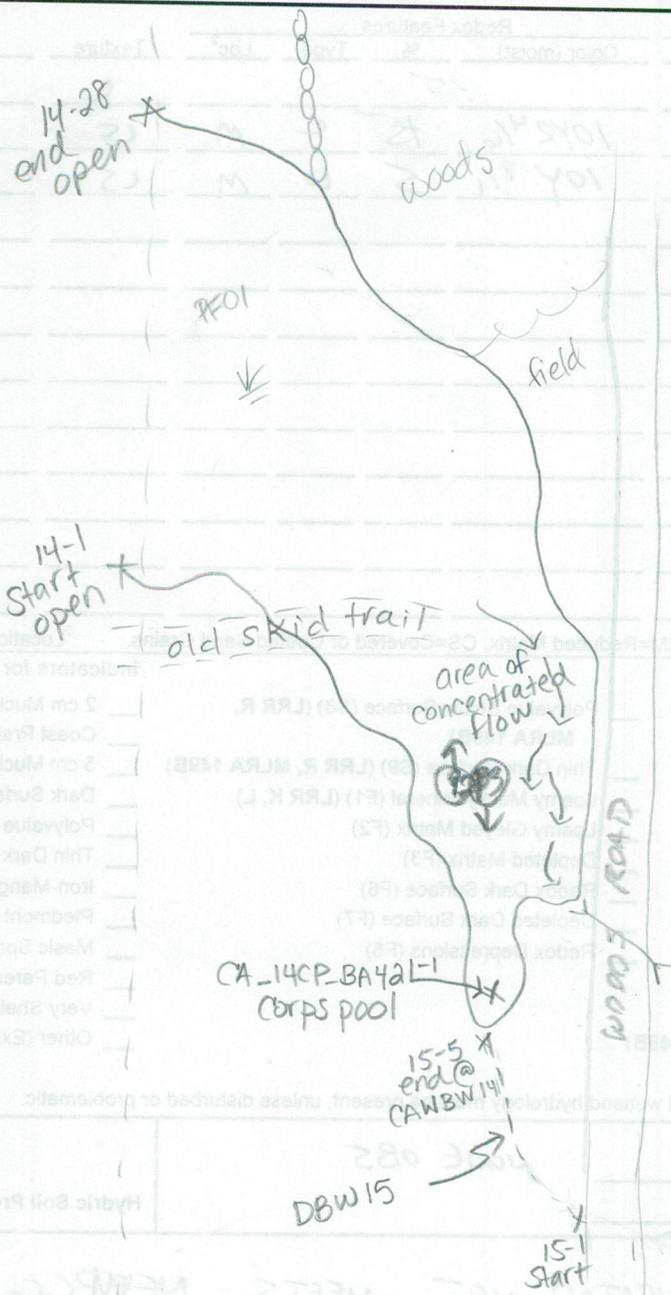
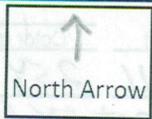
Remarks: (Include photo numbers here or on a separate sheet.)

* MORPHOLOGICAL ADAPTATION - SHALLOW ROOTS, RAISED ROOTS

SKETCH

Wetland ID: CAWBW14

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- NO within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- NO contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- NO is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- MAYBE within 25 feet of a river, stream or brook

POSSIBLY w/ IN 25' OF BROOK ON SE SIDE OF WOODS ROAD

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8/11/10
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: WET
Investigator(s): Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): SLOPE Local relief (concave, convex, none): CONCAVE
Slope (%): 5 Lat: 49 30 186.49 N Long: 39 45 10.92 E Datum: UTM, M 1983 NAD83
Soil Map Unit Name: NWI classification: PEM2, PFD1E

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

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

Table with 2 columns: Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? and Is the Sampled Area within a Wetland? Yes [X] No. Includes optional Wetland Site ID: CAWBW16.

Remarks: (Explain alternative procedures here or in a separate report.)
A FLAG NE @ 1/2 (UPSLOPE)
B FAC NE @ 1/2 (UPSLOPE)
C FAC NE @ 1/2 (UPSLOPE)
no T data plot recorded

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary and Secondary) and Secondary Indicators (minimum of two required). Includes indicators like Surface Water (A1), Saturation (A3), etc.

Field Observations: Surface Water Present? Yes No [X] Depth (inches):
Water Table Present? Yes No [X] Depth (inches): SURFACE
Saturation Present? Yes [X] No Depth (inches):
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 301)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>FRA NIG</u>	<u>15</u>	<u>X</u>	<u>FACW</u>
2. <u>BET ALL</u>	<u>10</u>	<u>X</u>	<u>FACW</u>
3. <u>ABI BAL</u>	<u>10</u>	<u>X</u>	<u>FAC</u>
4. <u>ACE RUB</u>	<u>10</u>	<u>X</u>	<u>FAC</u>
5. <u>FAGI GRA*</u>	<u>5</u>		
6. _____			
7. _____			

Sapling/Shrub Stratum (Plot size: 15')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>FRA NIG</u>	<u>15</u>	<u>X</u>	<u>FACW</u>
2. <u>ACE RUB</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
3. <u>BET ALL</u>	<u>5</u>	<u>X</u>	<u>FACW</u>
4. <u>BFAGI GRA*</u>	<u>5</u>	<u>X</u>	<u>FACU*</u>
5. _____			
6. _____			
7. _____			

Herb Stratum (Plot size: 5')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>OSN CIN</u>	<u>60</u>	<u>X</u>	<u>FACW</u>
2. <u>ONO SEN</u>	<u>10</u>		
3. <u>LUB PUB</u>	<u>10</u>		
4. <u>IMP CAP</u>	<u>10</u>		
5. <u>CAR CRI</u>	<u>5</u>		
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

Woody Vine Stratum (Plot size: _____)

1. <u>NOVE OBS</u>			
2. _____			
3. _____			
4. _____			
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

* HAS MORPHOLOGICAL ADAPTATION - RAISED ROOTS

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1-0								FIBRIC
0-14	10YR 3/1	85	10YR 5/2	5	D	M	fsli	
			5YR 4/6	10	C	PL	fsli	
14-21	5Y 5/2	80	5YR 4/6	20	C	M	fsli	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- 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)

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

NONE OBS IN PM

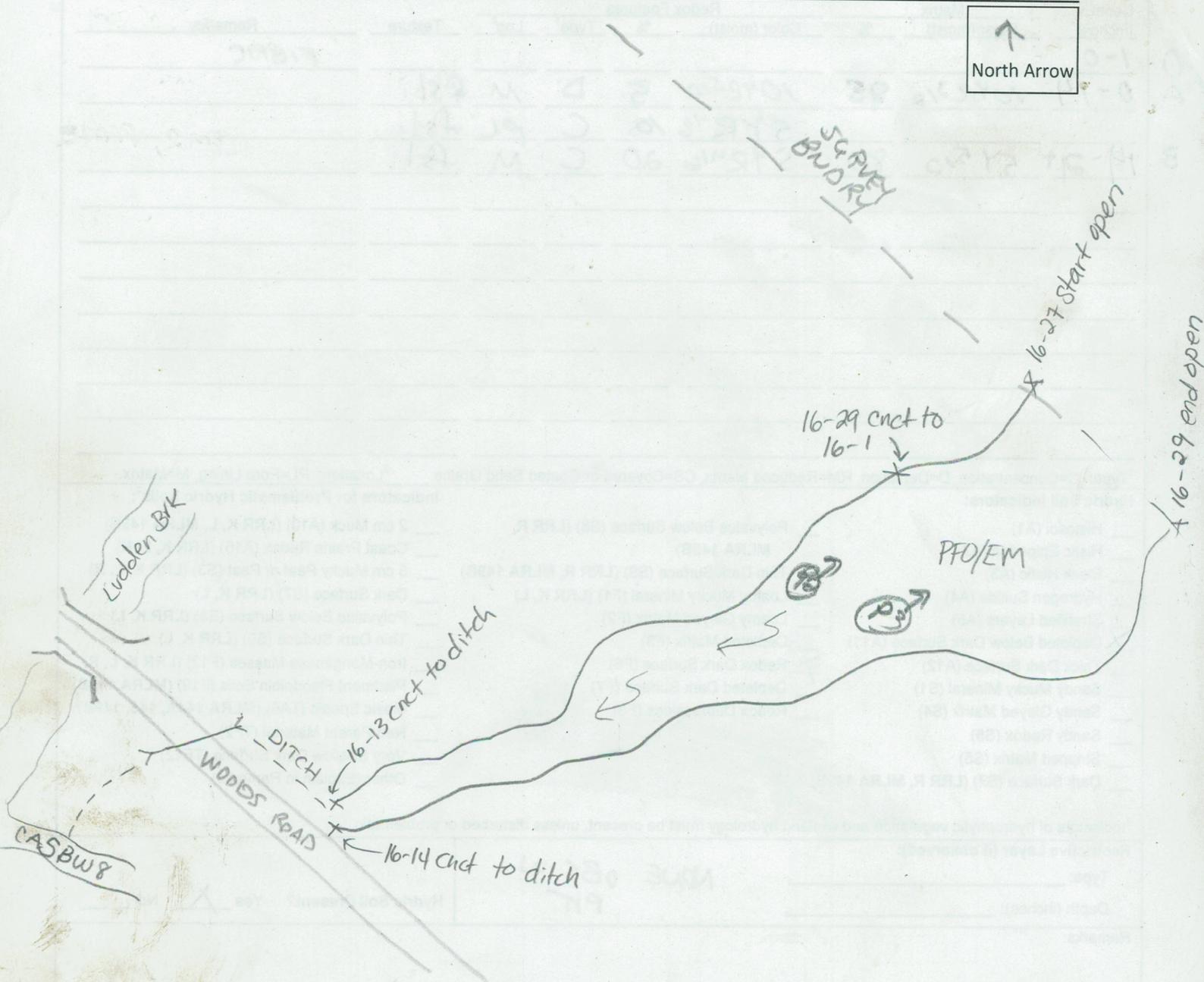
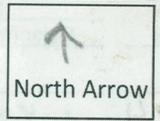
Hydric Soil Present? Yes No _____

Remarks:

SKETCH

Wetland ID: CAWBW16

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- NO within 250 feet of a coastal wetland
- UNK within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- UNK contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- UNK within FEMA floodzone
- UNK is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- UNK within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 2010-8-11
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: W
Investigator(s): RK JB Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave
Slope (%): 50% Lat: E 395072.50 Long: N 4930162.83 Datum: UTM Meters
Soil Map Unit Name: N/A NWI classification: PEM1*

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

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

Table with 3 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present?; Is the Sampled Area within a Wetland?; If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
*Narrow swales & small areas w/ few trees growing in wetland - located w/in forested landscape. Forest overstory overhangs from upland

HYDROLOGY

Table with 2 columns: Wetland Hydrology Indicators (Primary and Secondary); Primary Indicators (A1-A8); Secondary Indicators (B6-D5)

Field Observations: Surface Water Present? No [X] Depth (inches):
Water Table Present? No [X] Depth (inches):
Saturation Present? Yes [X] Depth (inches): 5"
Wetland Hydrology Present? Yes [X] No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>*modified</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Bet all</u>	<u>35</u>	<u>✓</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>35</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>**modified</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fra nig</u>	<u>8</u>	<u>✓</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>8</u> = Total Cover			
Herb Stratum (Plot size: <u>5' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ono sen</u>	<u>30</u>	<u>✓</u>	<u>FACW</u>
2. <u>Dry int</u>	<u>2</u>	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
<u>32</u> = Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SKETCH

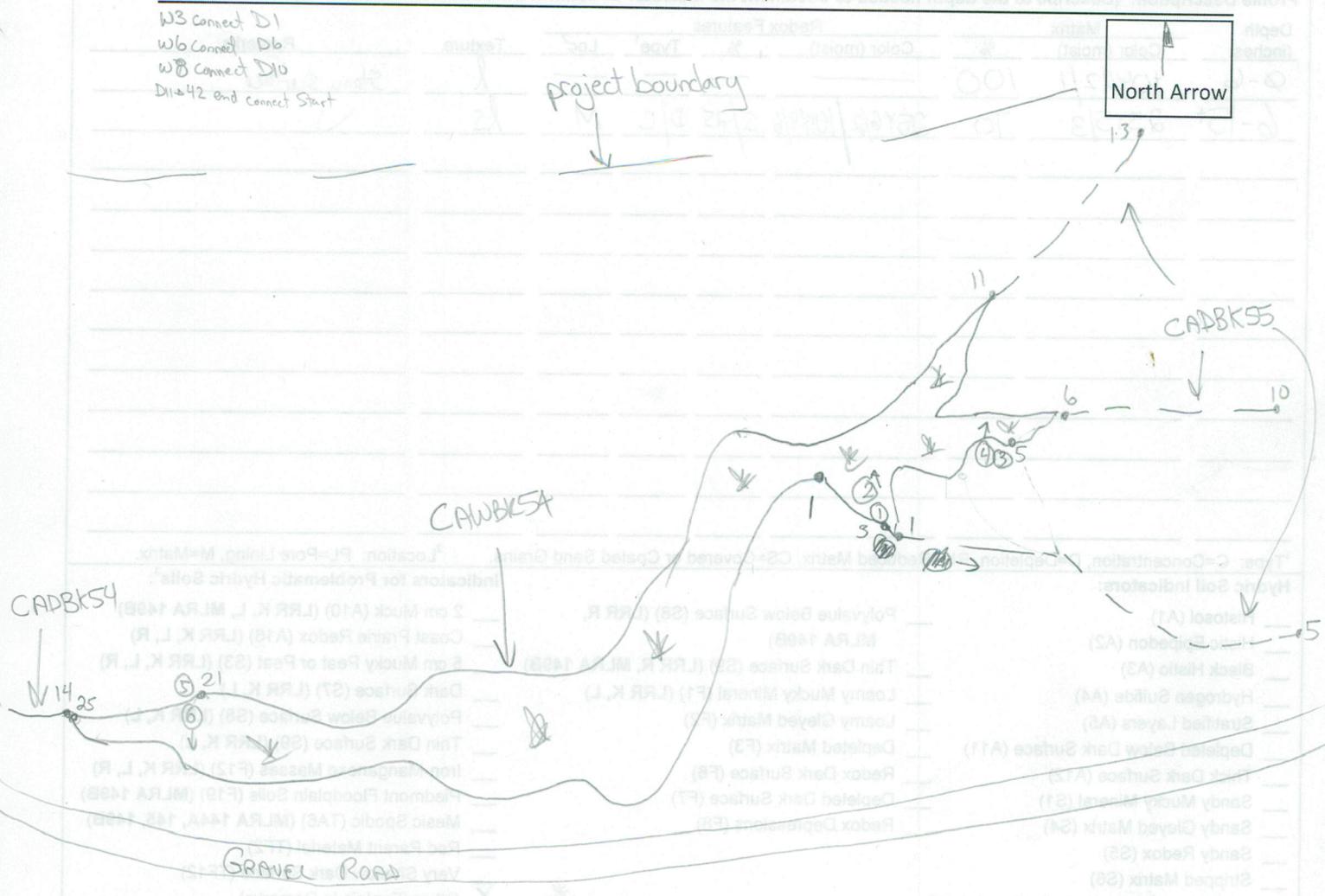
Wetland ID: CAWBK54

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)

W3 Connect D1
 W6 Connect D6
 W8 Connect D10
 D1+42 end Connect Start

project boundary

North Arrow



WOSS (check all that apply/or write UNK for unknown):

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

none observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 8/11/2010
Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: WET
Investigator(s): D. BRENNEMAN Section, Township, Range: - Canton, ME -
Landform (hillslope, terrace, etc.): TERRACE - SMALL FLOODPLAIN Local relief (concave, convex, none):
Slope (%): 2 Lat: SEE GPS DATA Long: Datum: UTM M 19N NAD1983
Soil Map Unit Name: NWI classification: PEM 2

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

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No
Wetland Hydrology Present? Yes X No
Is the Sampled Area within a Wetland? Yes X No
If yes, optional Wetland Site ID: CRW887
Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

Field Observations:
Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes X No Depth (inches): 12
Saturation Present? Yes X No Depth (inches): 10
Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> *</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u> *</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>WU ME</u>	<u>5</u>	<u>X</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Herb Stratum (Plot size: <u> 5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>QRCRI</u>	<u>100</u>	<u>X</u>	<u>FACW</u>
2. <u>SG</u>	<u>5</u>	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>NOVE OBS</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

___ Prevalence Index is ≤3.0¹

___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

ALTERED PLOT SIZE TO FIT

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					A5/	APPEARS TO BE EROSION FROM ROAD
2-5	10YR 3/2	90	2.5YR 5/8	10	C	M	f3/	
5-10	2.5Y 4/3	98	10YR 5/1	2	D	M	C/S	
10-20+	5YR 5/2	100					f3/	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³:

- 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 (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

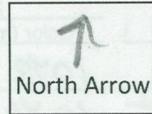
NONE OBS

Hydric Soil Present? Yes _____ No _____

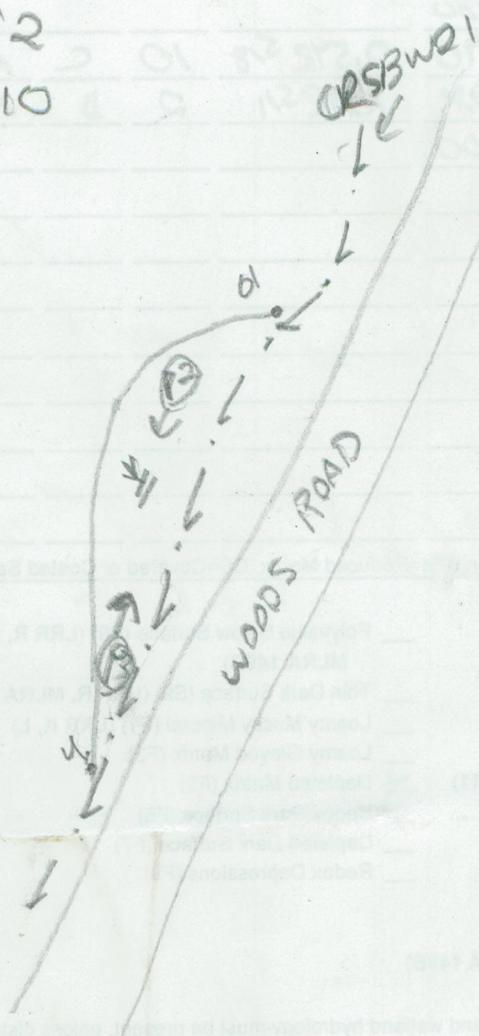
Remarks:

1ST SOIL LAYER APPEARS TO BE EROSION FROM ROAD, DISREGARDED IN PROFILE FOR KEYING.

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



CONCT 01 TO CRS BW21-12
CONCT 4 TO CRS BW21-10



WOSS (check all that apply/or write UNK for unknown):

UNK OR NOT OBS

- contains an S1 or S2 Community (identify: _____)
- contains SWH (identify type: _____)
- within 250 feet of a coastal wetland
- within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- within FEMA floodzone
- is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- within 25 feet of a river, stream or brook

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Canton Mountain Wind City/County: Canton / Oxford Sampling Date: 11/15/2010
 Applicant/Owner: Patriot Renewables (Consultant/Client: Tetra Tech EC) State: Maine Sampling Point: WET
 Investigator(s): D. BRENNEMAN, S. ALLEN Section, Township, Range: - Canton, ME -
 Landform (hillslope, terrace, etc.): NARROW Ravine Local relief (concave, convex, none): CONCAVE
 Slope (%): 2 Lat: 39.6595.99 Long: 49.30474.03 Datum: UTM NAD 1983
 Soil Map Unit Name: _____ NWI classification: DFD1/4E

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: <u>CRWB315</u>
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	_____ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Microtopographic Relief (D4)
_____ Sparsely Vegetated Concave Surface (B8)	_____ FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No _____ Depth (inches): 18"

Water Table Present? Yes No _____ Depth (inches): SURFACE

Saturation Present? Yes No _____ Depth (inches): SURFACE

(includes capillary fringe)

Wetland Hydrology Present? Yes No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>* </u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>FR ALU</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
2. <u>ACE RUB</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Sapling/Shrub Stratum (Plot size: 15') = Total Cover

1. <u>PIC RUB**</u>	<u>15</u>	_____	<u>FACU</u>
2. <u>VIB ALN</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Herb Stratum (Plot size: 5') = Total Cover

1. <u>ODM CLA</u>	<u>2</u>	<u>X</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Vegetation
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: 30') = Total Cover

1. <u>NONE OBSERVED</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

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? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)
* ALTERED PLOT SHAPE TO FIT \neq BUDRY
- MOST OF \neq AREA IS SPARSELY VEGETATED AND CONTAINS STANDING H₂O
** SHALLOW ROOTS (MORPHOLOGICAL ADAPTATION)

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
O _i 1-0	7.5YR 2.5/2	100					O _i	
E 1-10	7.5YR 5/1	98%	7.5YR 4/4	2	C	PL	SL	
B ₁ 10-17	10YR 3/4	95%	7.5YR 3/2	5%	G	M	SL	
B ₂ 17-23	2.5Y 5/4	85%	7.5YR 4/6	15%	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | |
|--|---|---|
| <p>Hydric Soil Indicators:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | <ul style="list-style-type: none"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) | <p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) |
|--|---|---|

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____ **NONE OBSERVED**

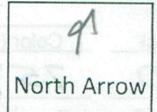
Depth (inches): _____

Hydric Soil Present? Yes No

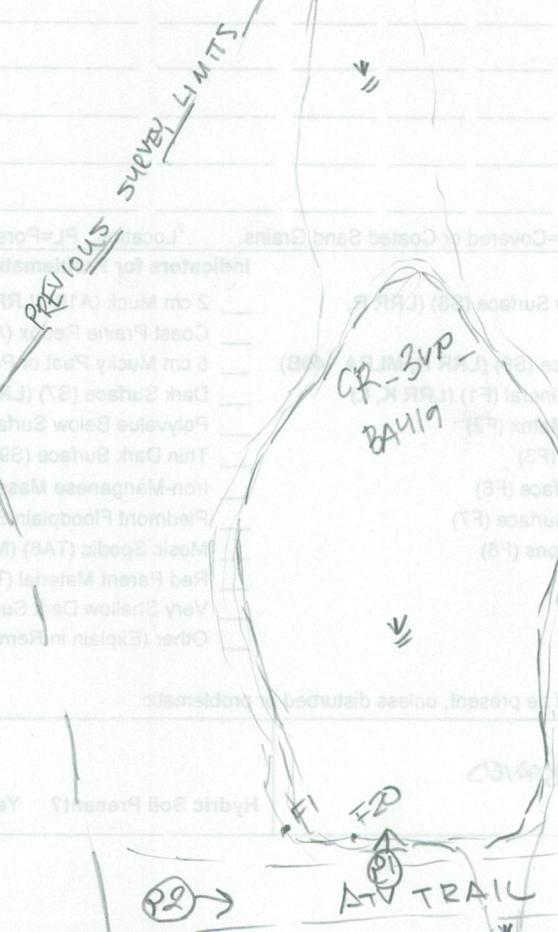
Remarks:

(check all that apply or write N/A for unknown)
 contains an S1 or S2 Community Identifying
 contains SWH Identifying type
 within 250 feet of a coastal wetland
 within 250 feet of the normal high water line and within the same watershed of
 any lake or pond classified as GPA under 38 M.R.S.A. § 405-A
 contains at least 20,000 square feet of aquatic vegetation, emergent marsh
 vegetation or open water, unless result of an artificial pond or impoundment
 within FEMA floodzone
 is or contains peatlands, except that the department may determine that a
 previously mapped peatland, or portion thereof, is not a wetland of special
 significance
 within 25 feet of a river, stream or brook

(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



FLAGS
F1-F20



WOSS (check all that apply/or write UNK for unknown):

- UNK contains an S1 or S2 Community (identify: _____)
- UNK contains SWH (identify type: _____)
- NO within 250 feet of a coastal wetland
- NO within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- NO contains at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless result of an artificial ponds or impoundment.
- NO within FEMA floodzone
- NO is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance
- NO within 25 feet of a river, stream or brook