APPENDIX A
SUPPORTING DOCUMENTATION
AERIAL VIEWS OF PROJECT SECTIONS
USGS 7.5 MINUTE TOPOGRAPHIC MAPS OF PROJECT SECTIONS
FIELD DATA SHEETS
SITE PHOTOS

Explanation of Legend Symbols

Line Generic – Used to denote a feature of interest during the site but for which a jurisdictional opinion could not be rendered based on field conditions. These areas may be later determined to be jurisdictional following review of USGS topographic maps, NWI data and/or aerial photographs.

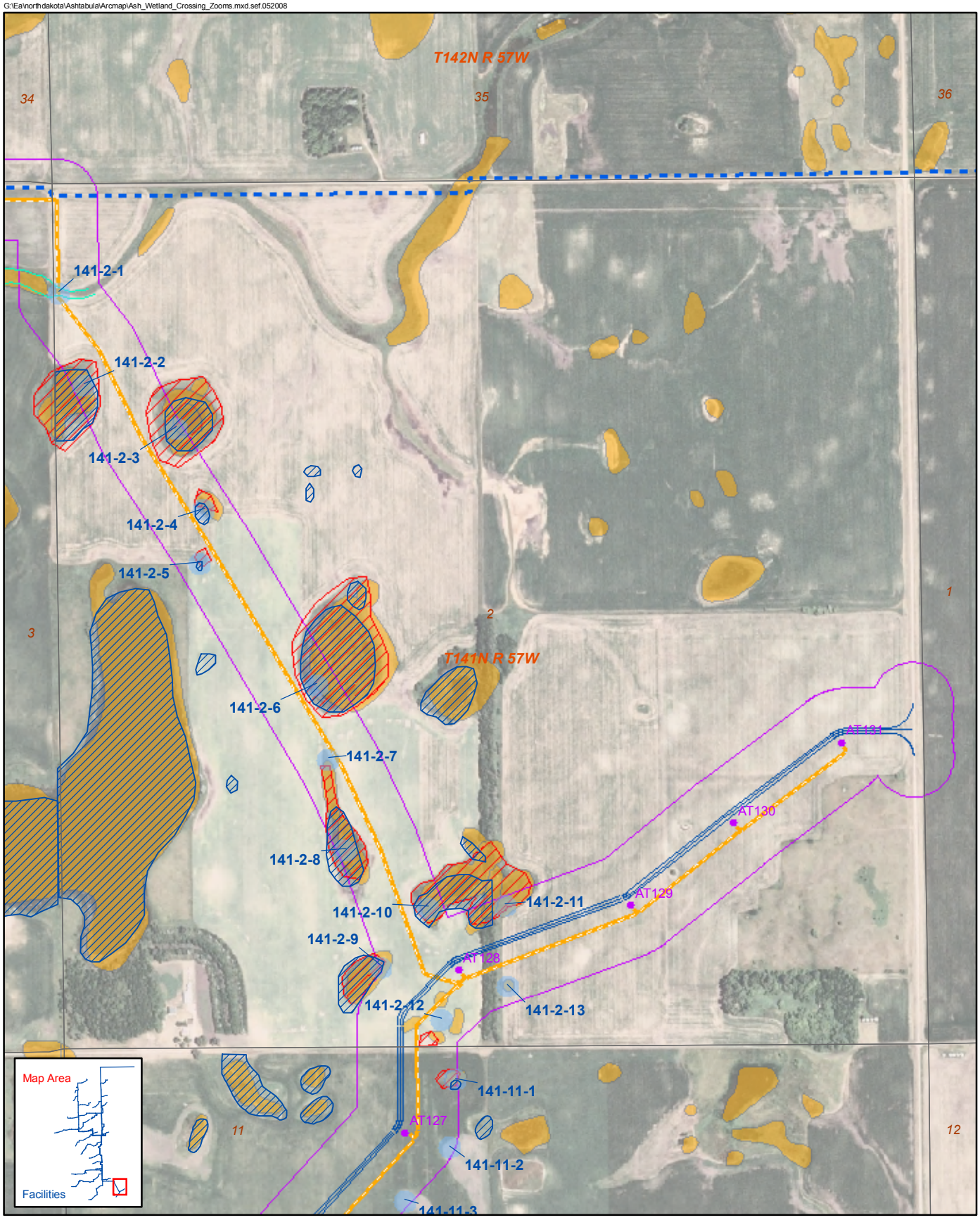
RPW2 – Relatively permanent water as defined by the USACE Jurisdictional Guide Book.

Wetland2 – A line representing a wetland boundary which due to length or size of the wetland could not be collected as a closed wetland polygon (Wetland3).

Wetland3 – Wetland which the boundaries were such that GPS data could be collected using a closed polygon.

Township 141
Range 57
Section 2

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 2

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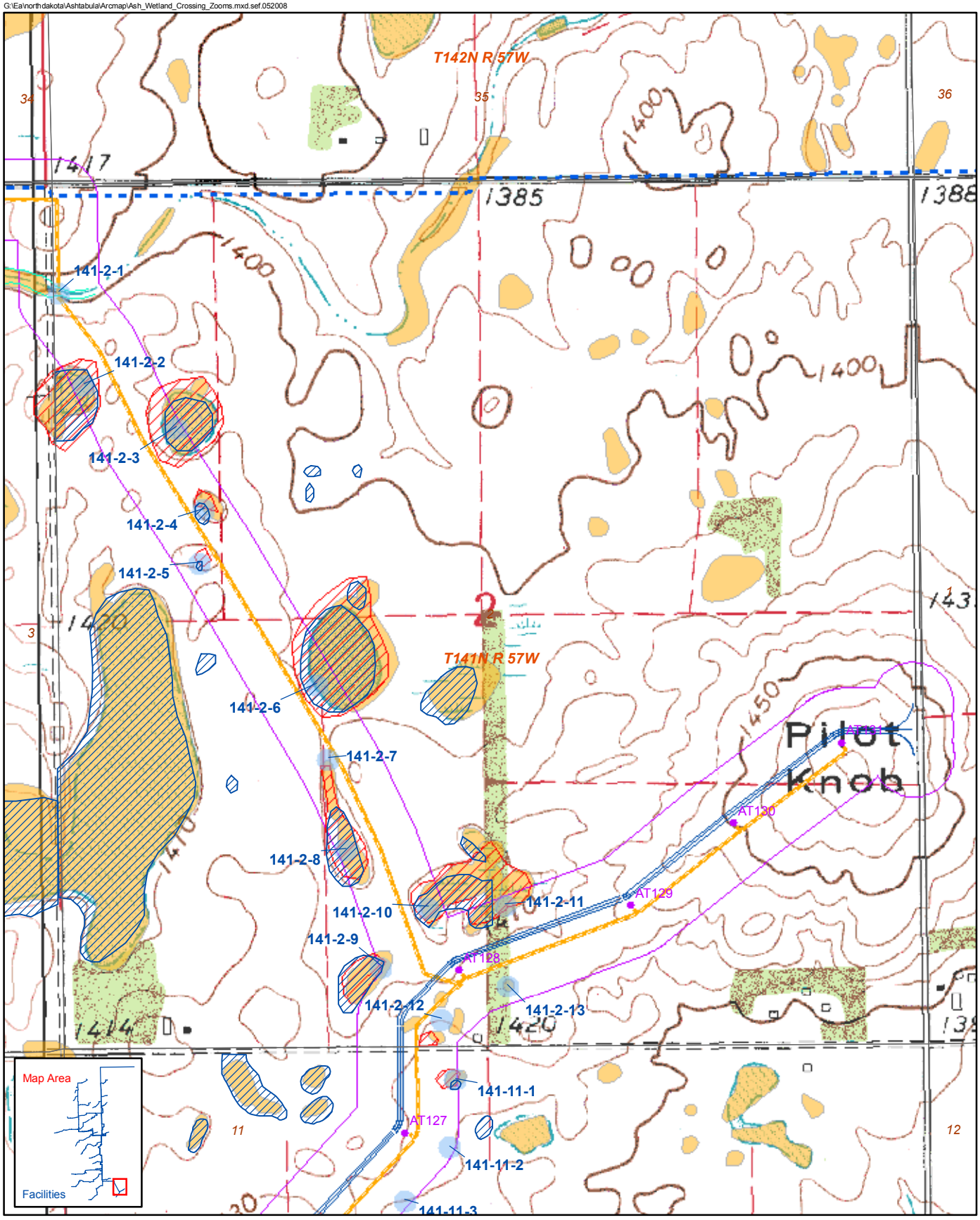

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Section
NWI Wetland Area
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Crossing Location
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Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 2

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW	Polygonum pensylvanicur	ANEF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

Field Drainage
P: Perennial G: Grass
N: Native A: Annual
E: Emergent
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1), View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**VALLERS**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

141-2-1 View Facing East 04/30/08

141-2-1 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phragmites australis	PNEG	FACW	Typha angustifolia	PNEF	OBL
Phalaris arundinacea	PNG	FACW+	Salix sp.	S	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native S: Shrub
E: Emergent I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 3

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1msbk
6-16	Bq	5Y3/1			SiC 1mpr

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-2 View Facing Southwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Rumex crispus	PIF	FACW	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennal G: Grass
N: Native I: Introcuced
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 3

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/AQUIC CUMULIC H	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1msbk
6-16	Bq	5Y3/1			SiC 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-3 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial A: Annual
N: Native G: Grass
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/AQUIC CUMULIC H	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1mpsbk
6-11	Bq1	5Y3/1			SiC 1mpv
11-16	Bq2	5Y3/2			SiC 1mpv

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

141-2-4 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks : Vegetation dominated by non-hydrophytes.

Recently farmed soybean field
A: Annual
I: Introduced
F: Forb
H: Partly woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/AQUIC CUMULIC H	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	5Y2.5/1			SiC 1msbk
6-11	Bq1	5Y3/1			SiC 1mpv
11-16	Bq2	5Y3/2			SiC 1mpv

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-5 View Facing South 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial A: Annual
N: Native G: Grass
E: Emergent
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1msbk
6-16	Bq	5Y3/1			SiC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

141-2-6 View Facing Northeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-7/8	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-7/8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Rumex crispus	PIF	FACW	Typha angustifolia	PNEF	OBL
Phalaris arundinacea	PNG	FACW+	Polygonum pensylvanicur	ANEF	FACW
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial E: Emergent
I: Introduced G: Grass
F: Forb A: Annual
N: Native

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 3.5

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
141-2-8 was consolidated into 141-2-7
Photo: View South (Page 1), View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5Y2.5/1			SiC
7-16	Bq	5Y3/1			SiC

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-7/8 View Facing North 04/30/08

141-2-7/8 View Facing South 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-9	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Polygonum pensylvanicur	ANEF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial I: Introduced
N: Native A: Annual
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 2msbk
6-16	Bq	5Y3/1			SiC 2mpr

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-9 View Facing South 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-10/11	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-10/11
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha latifolia	PNEF	OBL
Phragmites australis	PNEG	FACW	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 3.5
- Depth to Saturated Soil (inches) : 3.5
- Depth to Free water in Pit (inches) : 3.5

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1msbk
6-16	Bq	5Y3/1			SiC 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-10/11 View Facing North 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-12	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Planted Soybean Field
A: Annual
I: Introduced
F: Forb
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	5Y2.5/1			SiC 1msbk
6-11	Bq1	5Y3/1			SiC 1mpr
11-16	Bq2	Y3/2			SiC 2mpr

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-12 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-2-13	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-2-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by non-hydrophytes.

Area Recently Plowed Field
A: Annual F: Forb
I: Introduced
G: Grass
P: Perennial

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-2-13 View Facing West 04/30/08

141-2-13B View Facing West 04/30/08

Township 141
Range 57
Section 3

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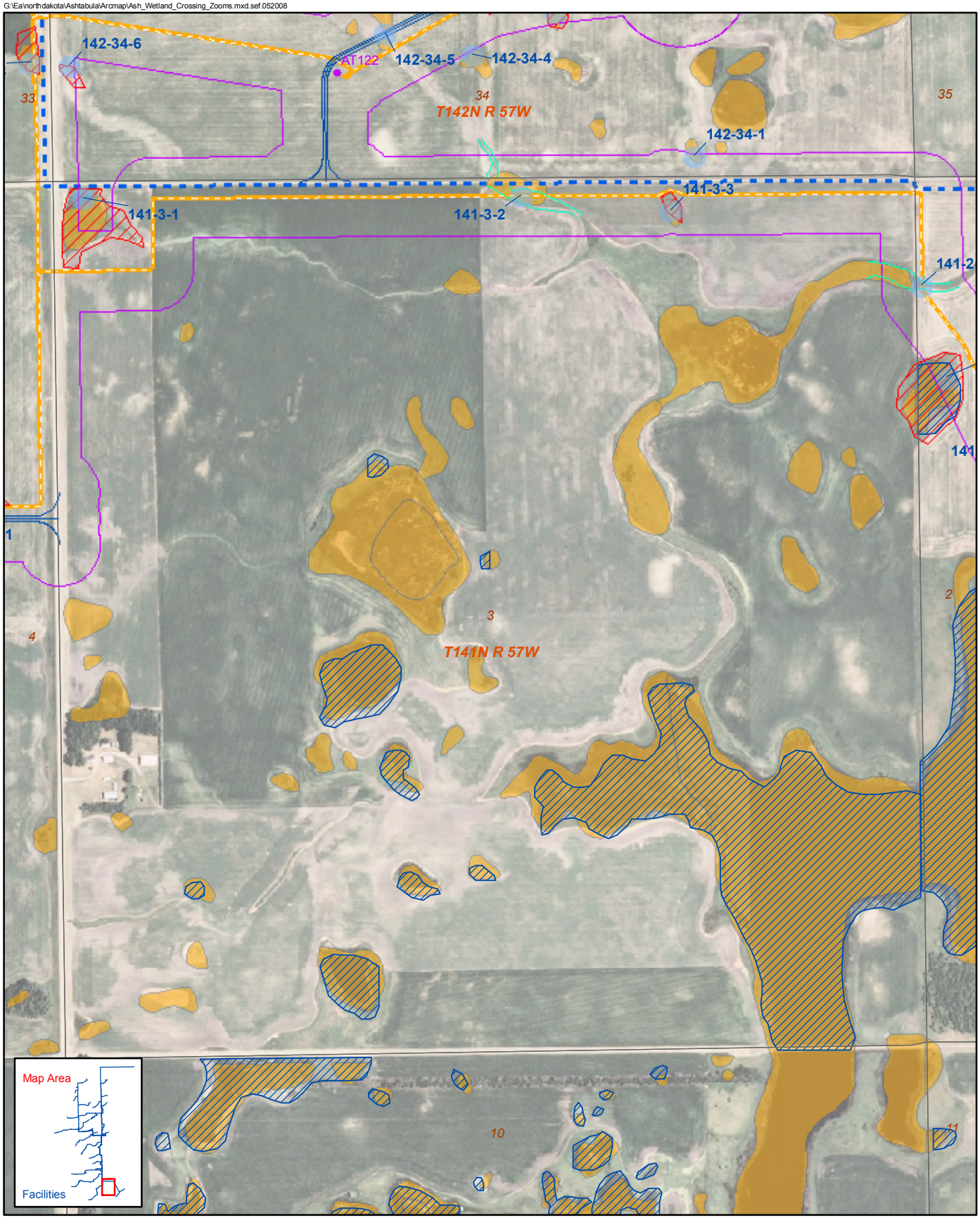


June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

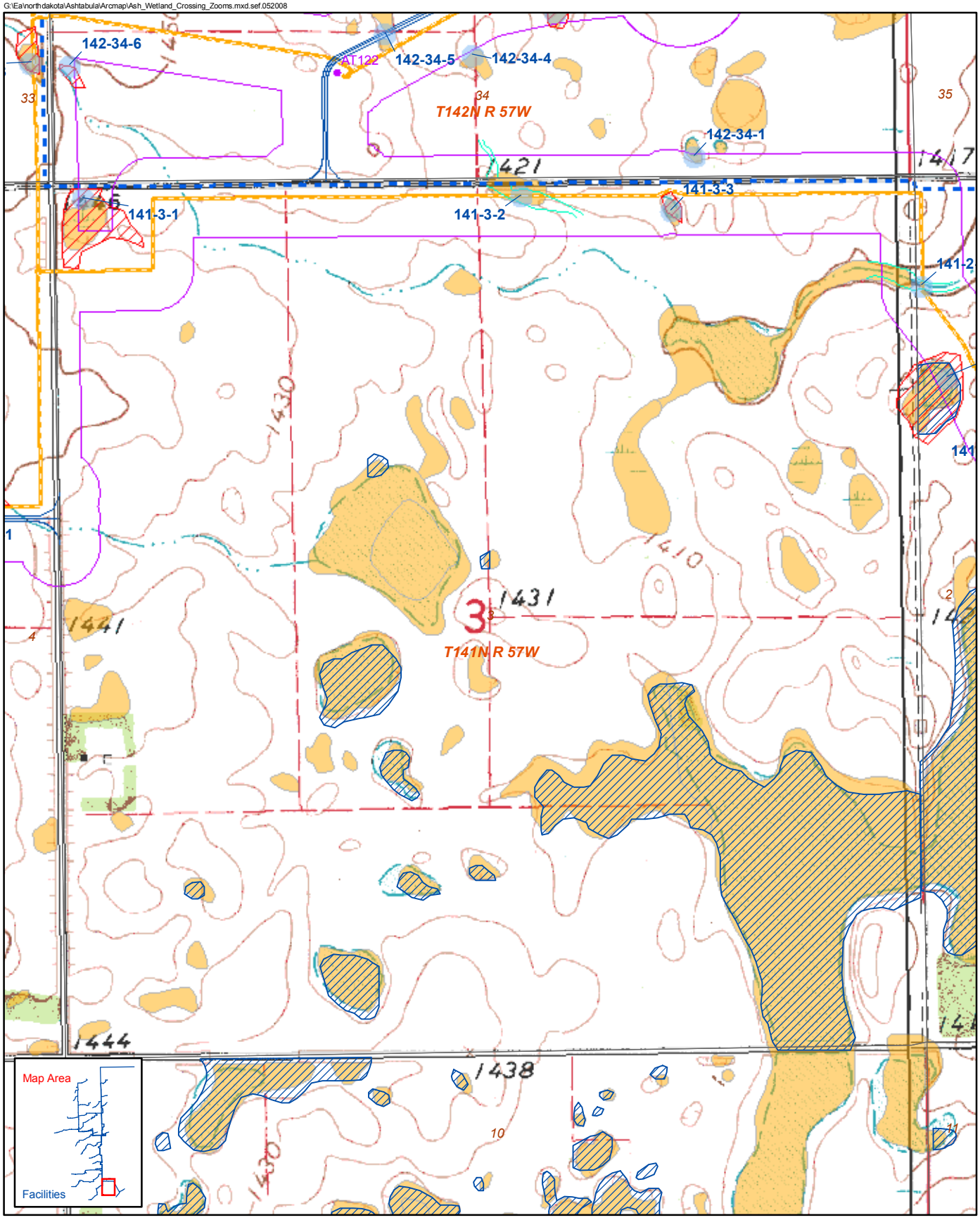
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 3

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 3

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-3-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-3-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

E: Emergent N: Native
F: Forb P: Perennial
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 1msbk
6-16	Bq	5Y3/1			SiC 1mpr

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil may contain Typic Calciudolls. Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present.

141-3-1 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-3-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-3-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phalaris arundinacea	PNG	FACW+	Polygonum pensylvanicur	ANEF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial I: Introduced
N: Native G: Grass
E: Emergent A: Annual
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil may contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-3-2 View Facing Northeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-3-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-3-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Facing Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2.5/1			SiC 1msbk
6-12	E1	2.5Y3/1			SiC 2mpl
12-16	E2	2.5Y3/2			SiC 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-3-3 View Facing Northwest 04/30/08

Township 141
Range 57
Section 4

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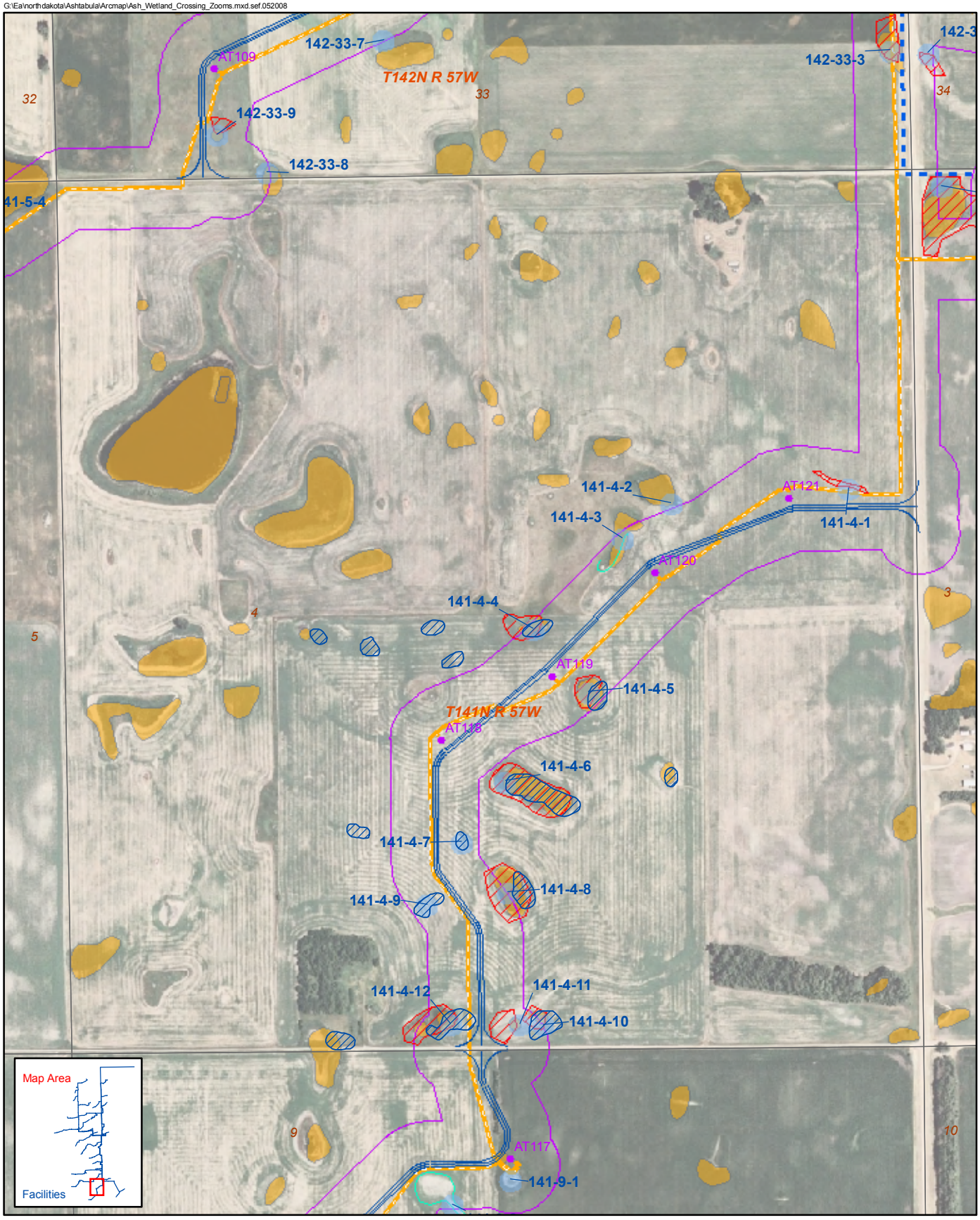

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 4

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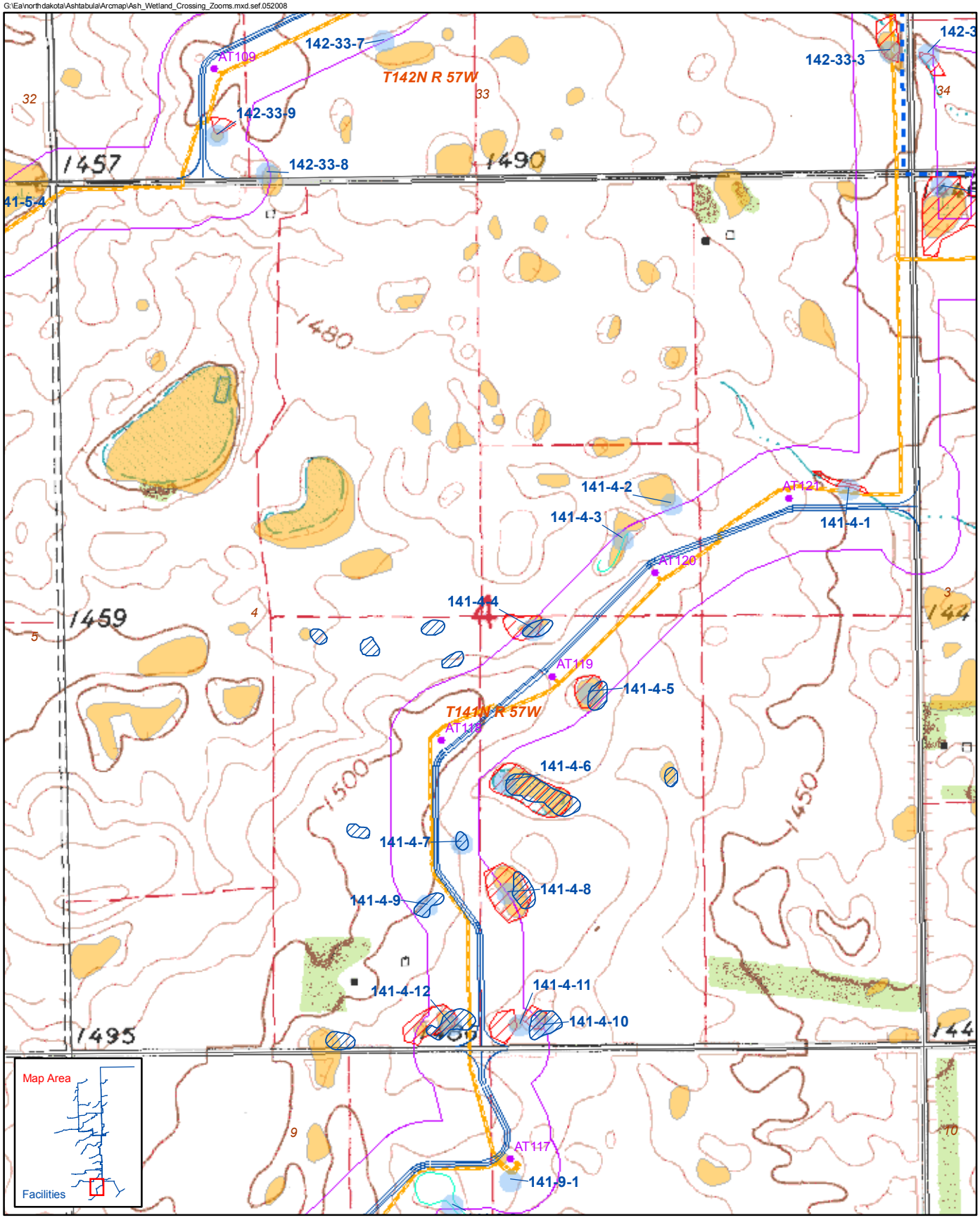

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 4

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-1 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	141-4-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	well to moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-1 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtbula LLC 141-4-2 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	141-4-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-2 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-3 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-4-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial G: Grass
N: Native F: Forb
I: Introduced

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 141-4-3 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 141-4-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 141-4-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn removing any presence of hydrophytic vegetation. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate the presence of wetland hydrology.
Photo: View looking Northwest.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 2.5/1			SicL 1msbk
6-16	E	2.5y 3/1			SicL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-4 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 141-4-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 141-4-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattails. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate the presence of wetland hydrology.
Photo: View looking Southeast.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5y2.5/1			Sic 2msbk
6-13	Bg	5y3/1			Sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-5 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 141-4-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 141-4-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattail. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines and inundation indicate the presence of wetland hydrology.
Photo: View looking Southeast.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			Sic 1msbk
7-16	Bg	5y3/1			Sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Wetland area has been impacted by farming. Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-6 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-7 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	141-4-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-4-7 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-8	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-4-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1.5

Depth to Saturated Soil (inches) : 1.5

Depth to Free water in Pit (inches) : 1.5

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 2msbk
6-16	Bq	5Y3/1			SiC 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-4-8 View Facing Southeast 04/30/08

141-4-9 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-10	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-4-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 2msbk
6-16	Bq	5Y3/1			SiC 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-4-10 View Facing East 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 141-4-10B	Date :	06/25/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 141-4-10B
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☑	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Wetland has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
This site is seasonal USFW easement wetland.
Photos: Looking North

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name :	Barnes-Svea	Drainage Class :	
(Series and Phase)		Field Observation	
Taxonomy (subgroup)		Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

Histosols	Concretions
Histic Epipedon	High Organic Content in Surface Layer Sandy Soils
Sulfidic Odor	Organic Streaking in Sandy Soils
Aquic Moisture Regime	Listed on local Hydric Soils List
Reducing Conditions	Listed on National Hydric Soils List
Gleyed or Low-Chroma Colors	Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: This site is USFW easement wetland. Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-4-10B View North

141-4-10B View North

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-11	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-4-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Plowed Corn Field
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2.5/1			SiC 2msbk
6-11	Bq1	2.5Y3/1			SiC 2msbk
11-16	Bq2	2.5Y4/2			SiC 1msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-4-11 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-4-12	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-4-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Plowed Corn Field
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC 1msbk
7-14	Bq1	2.5Y3/1			SiC 2nsbk
14-16	Bq2	2.5Y4/1			SiC 1fsbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

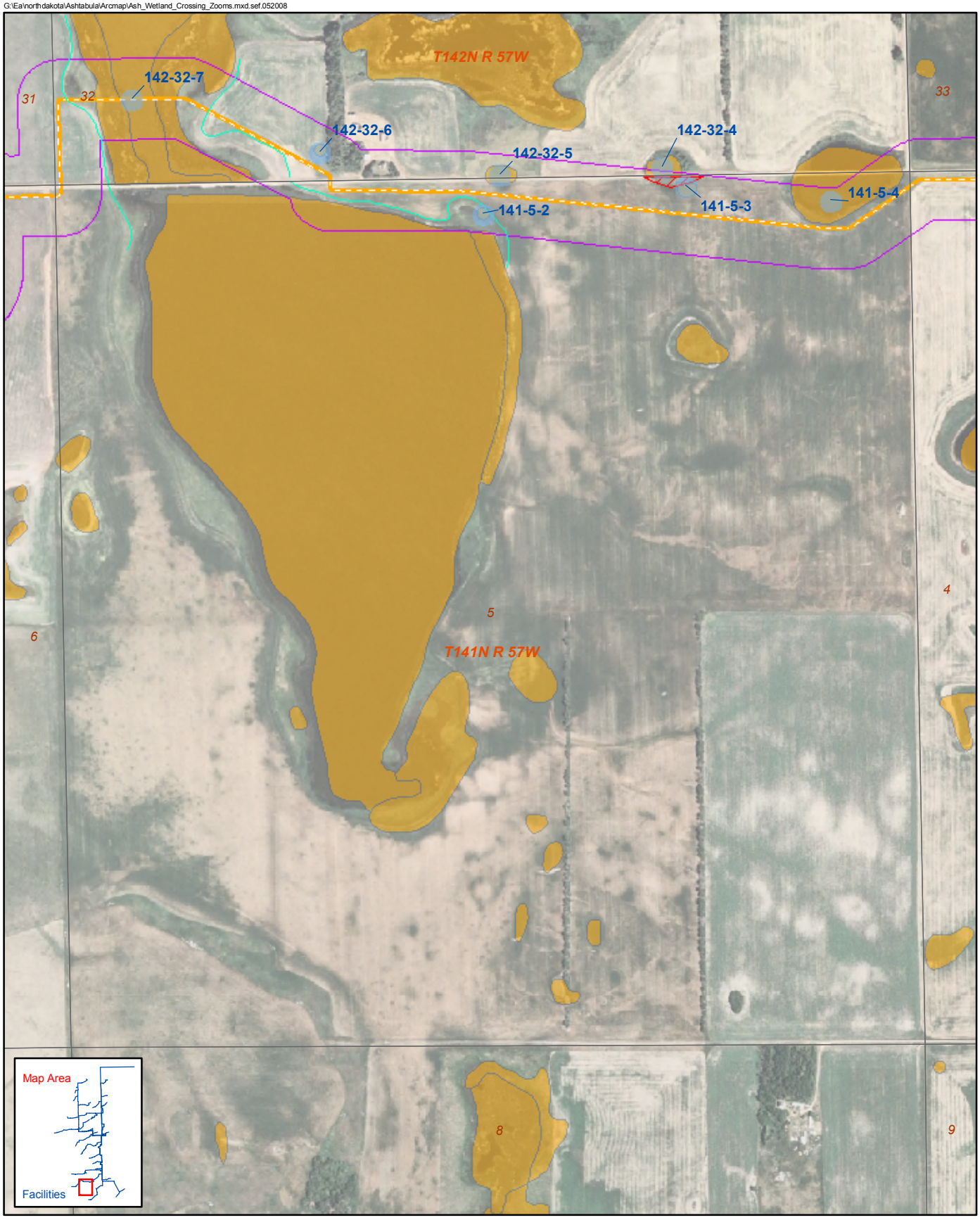
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-4-12 View Facing Northeast 04/30/08

Township 141
Range 57
Section 5

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

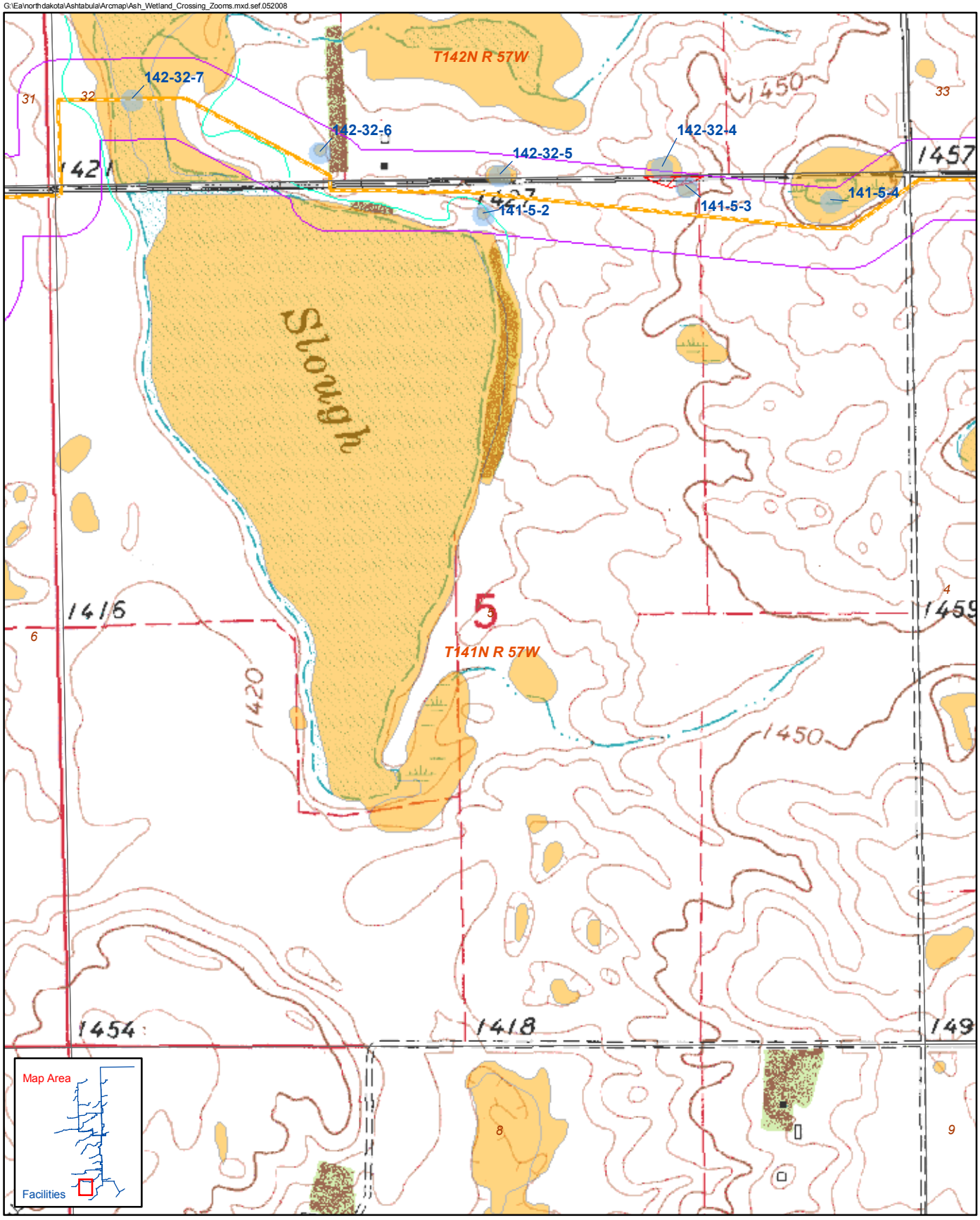
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 5

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 5

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-5-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/DPS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-5-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 6.5

Depth to Saturated Soil (inches) : 6.5

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-5-2 View Facing East 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-5-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-5-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial E: Emergent
N: Native
G: Grass
I: Introduced
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5Y2.5/1			SiC 1msbk
7-12	Bq1	5Y3/1			CL 3msbk
12-16	Bq2	5Y3/2			CL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-5-3 View Facing East 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-5-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-5-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha latifolia	PNEF	OBL
Salix sp.	NS	NI	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial S: Shrub
N: Native
G: Grass
E: Emergent
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 12.5

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-5-4 View Facing East 04/30/08

Township 141
Range 57
Section 6

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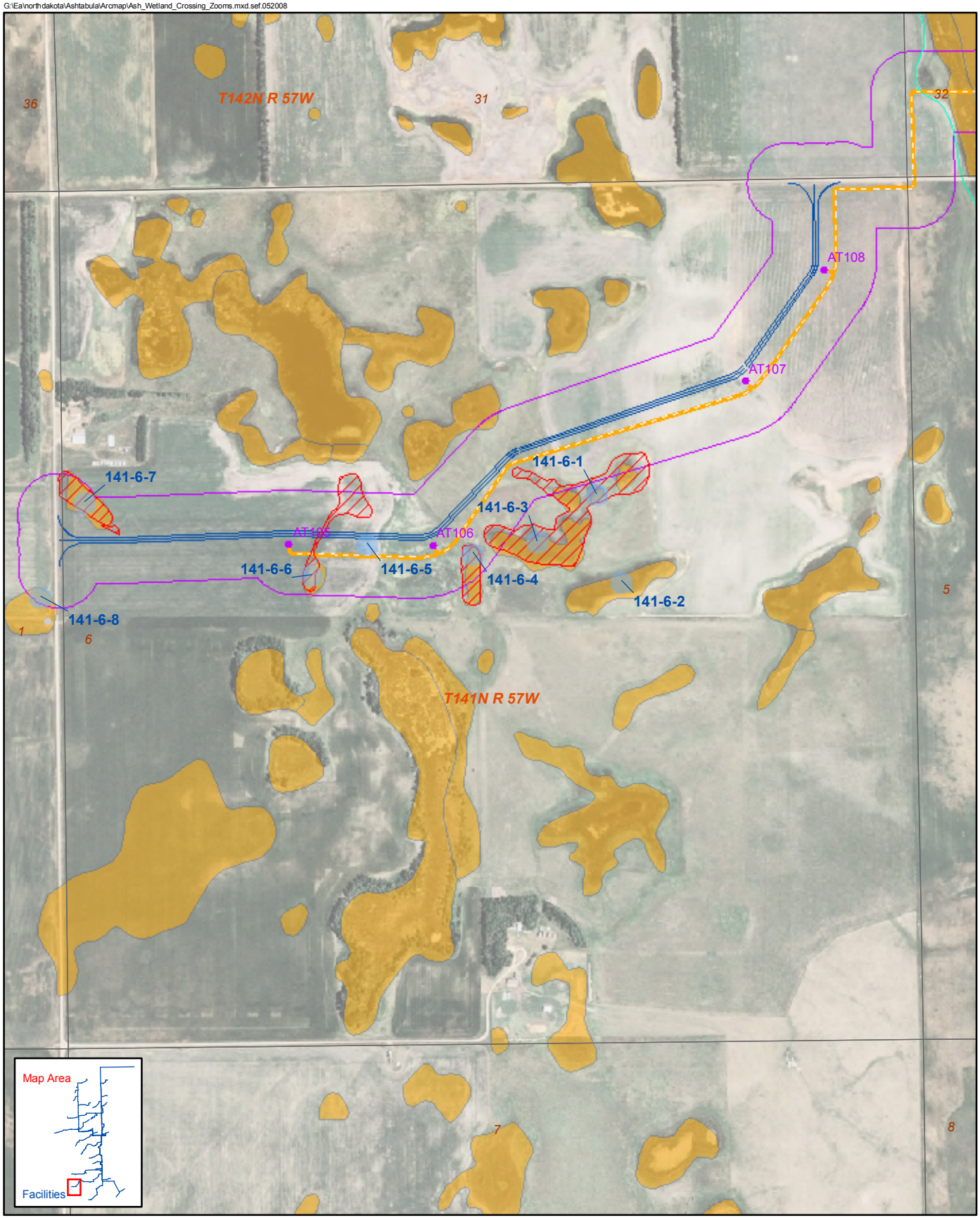

June 26 2008

N
W E
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0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 6

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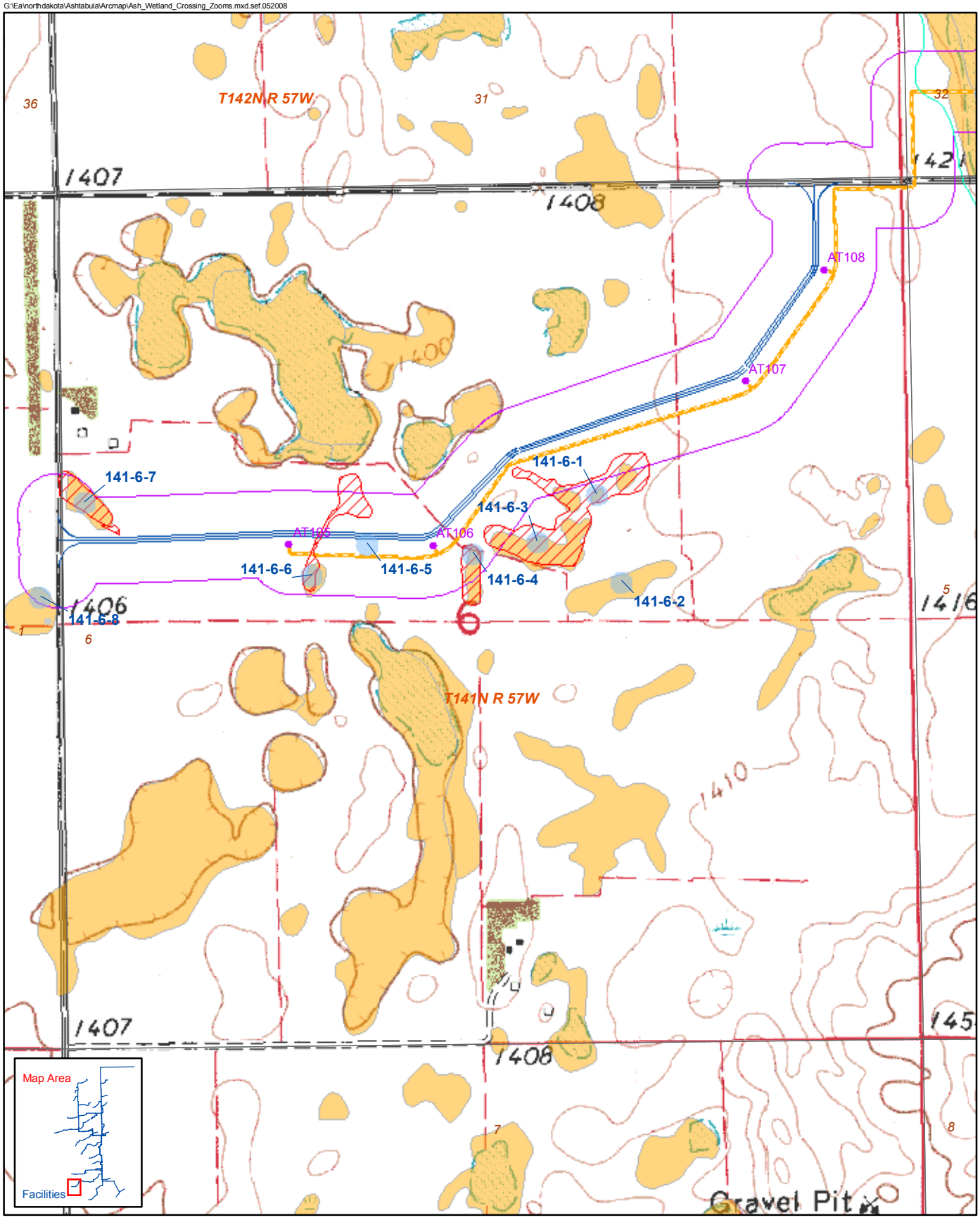

June 26 2008

N
W E
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0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 6

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 141-6-1/3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 141-6-1/3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This wetland areas dominant vegetation is reed grass, cattails and curly dock. Vegetation dominated by hydrophytes.

P: Perennial	P: Perennial	P: Perennial
N: Native	N: Native	I: Introduced
G: Grass	E: Emergent	F: Forb
	F: Forb	

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 4"
- Depth to Free water in Pit (inches) : 4"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			Sic 2msbk
7-16	Bg	5y 3/1			Sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Wetland located in CRP area possibly native prairie. Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-6-1,3 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-6-2 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-6-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native G: Grass
E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View South (Page 1), View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**VALLERS**	Drainage Class :	Poorly
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland is in CRP or possible native prairie.

Site 141-6-2 looking south.

Site 141-6-2 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 141-6-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 141-6-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated in reed grass and cattail. Vegetation dominated by hydrophytes.

P: Perennial P: Perennial
N: Native N: Native
G: Grass E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 10"

Depth to Free water in Pit (inches) : 10"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	PONDED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5.5y 2.5/1			Sic 3msbk
6-16	Bg	5.5y 3/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Wetland is located in CRP or possibly native prairie. Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-6-4 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 141-6-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ? ☐	Community ID : 141-6-6
Is the Site Significantly Disturbed (Atypical Situation) ? ☑	Transect ID : T1
Is the Area a Potential Problem Area ? ☐	Plot ID: A
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Site has been farmed in corn.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows no indications of wetland hydrology.
Photo: View looking Southwest.

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	AP	5Y2, 5/1			Sic 1msbk
6-16	BG	5Y 3/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks: Site is non-wetland. Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-6-6 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-6-7 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	141-6-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

SIte has bee farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-6-7 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-6-8 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	141-6-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 141-6-8 looking NW.

Township 141
Range 57
Section 8

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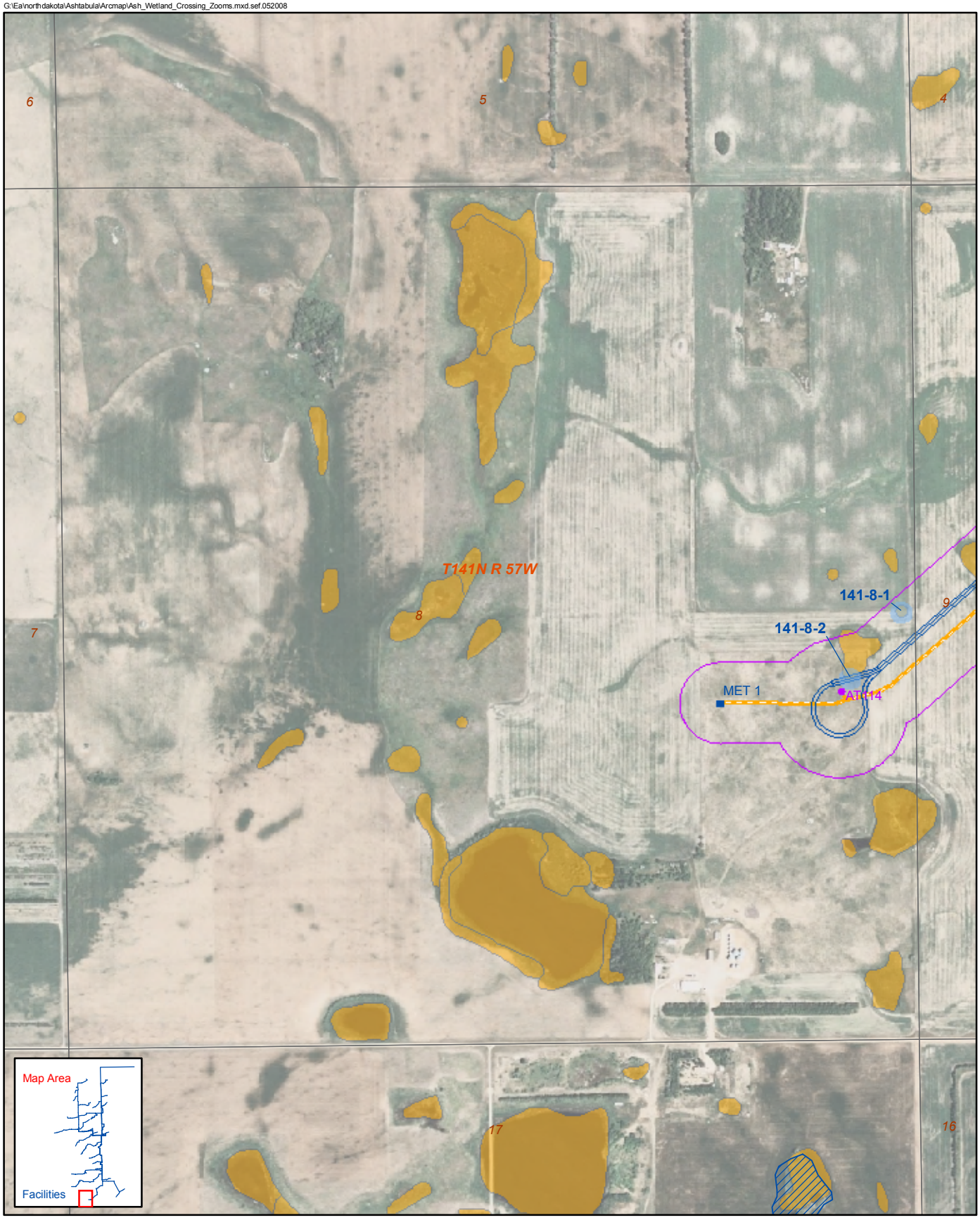

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 8

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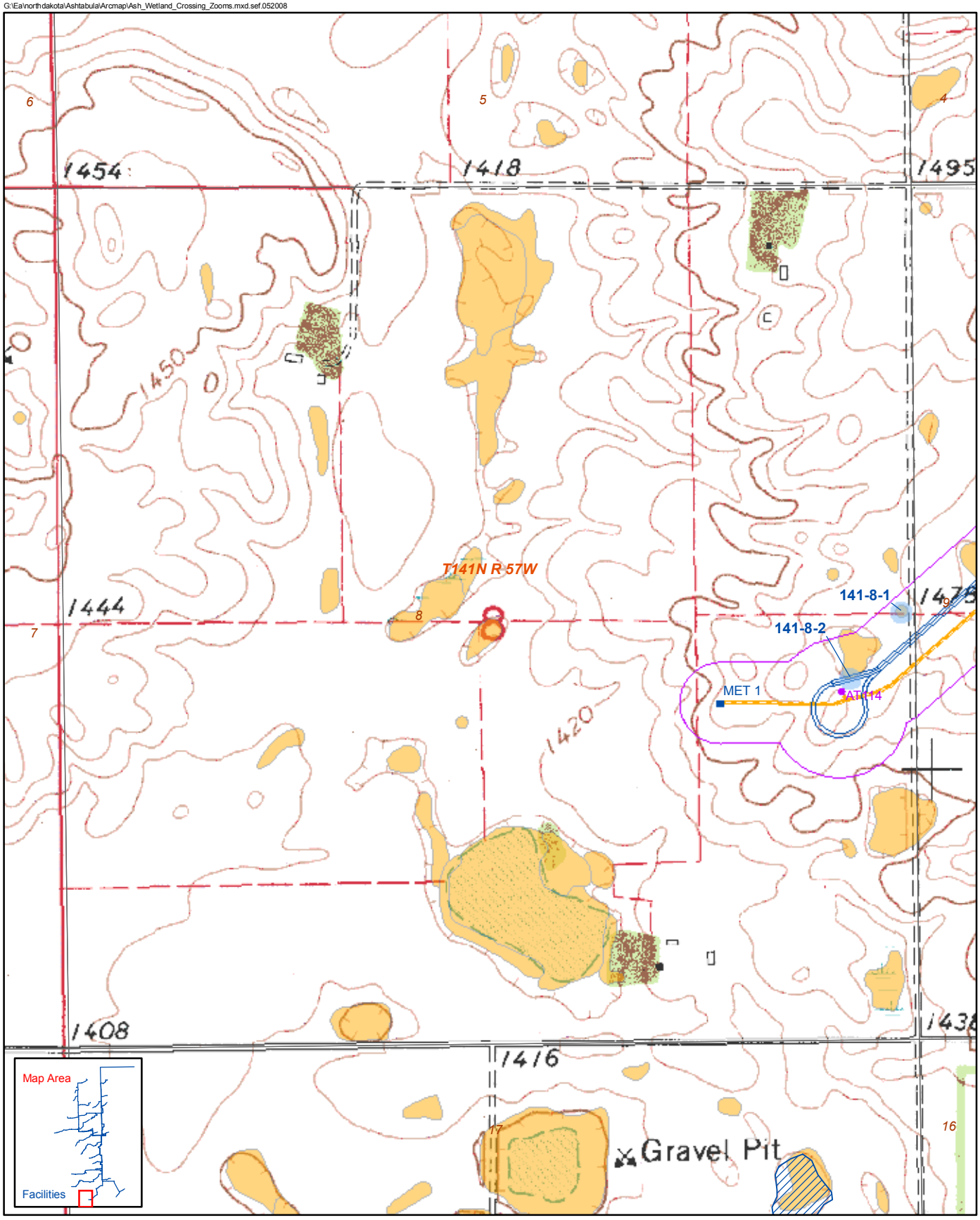

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 8

TETRA TECH, INC.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-8-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-8-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

Plowed Wheat Field
A: Annual F: Forb
G: Grass
P: Perennial
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-8-1 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-8-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-8-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Plowed Soybean Field
A: Annual
I: Introduced
F: Forb
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-8-2 View Facing North 04/30/08

TOWNSHIP 141
RANGE 57
SECTION 9

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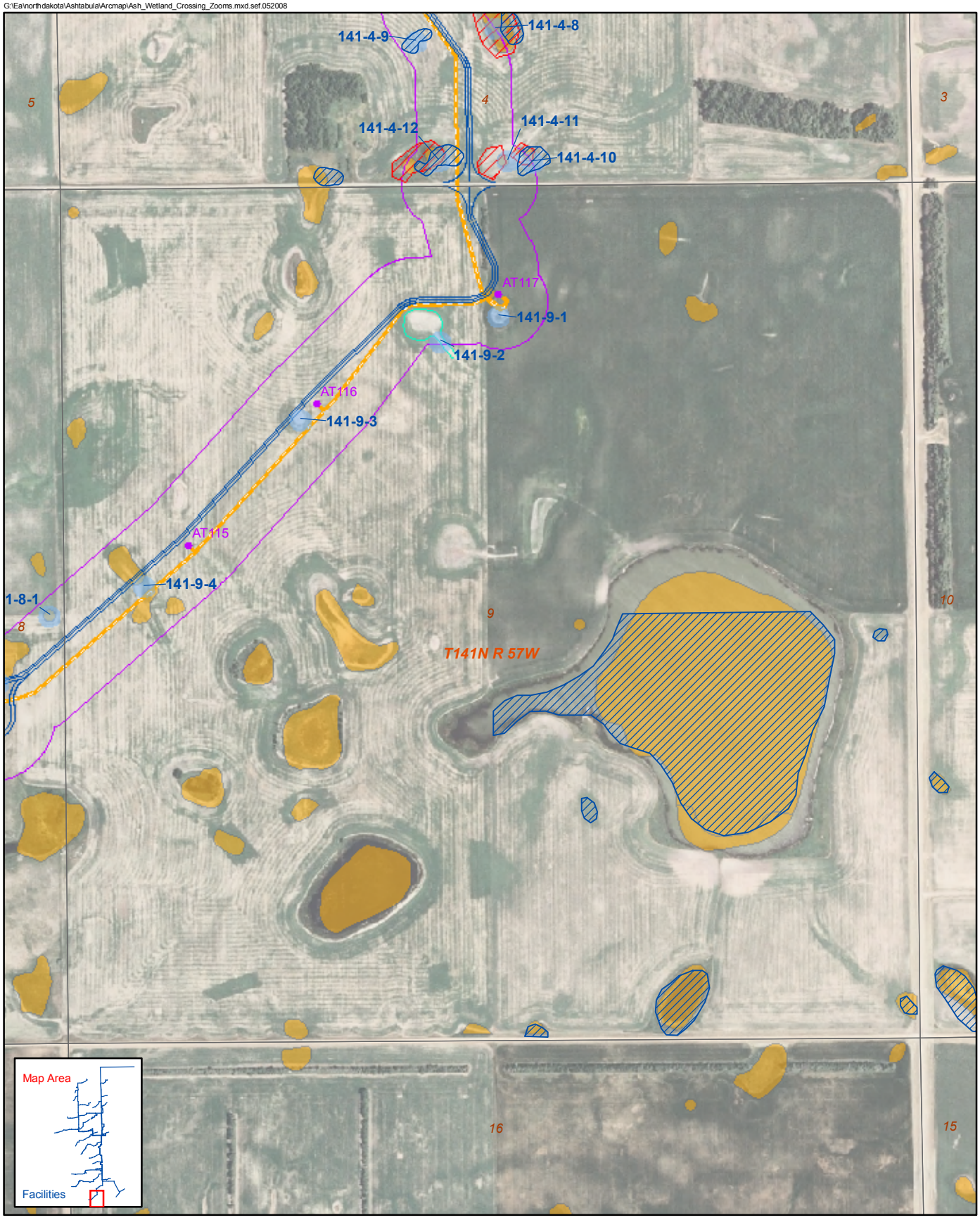

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 9

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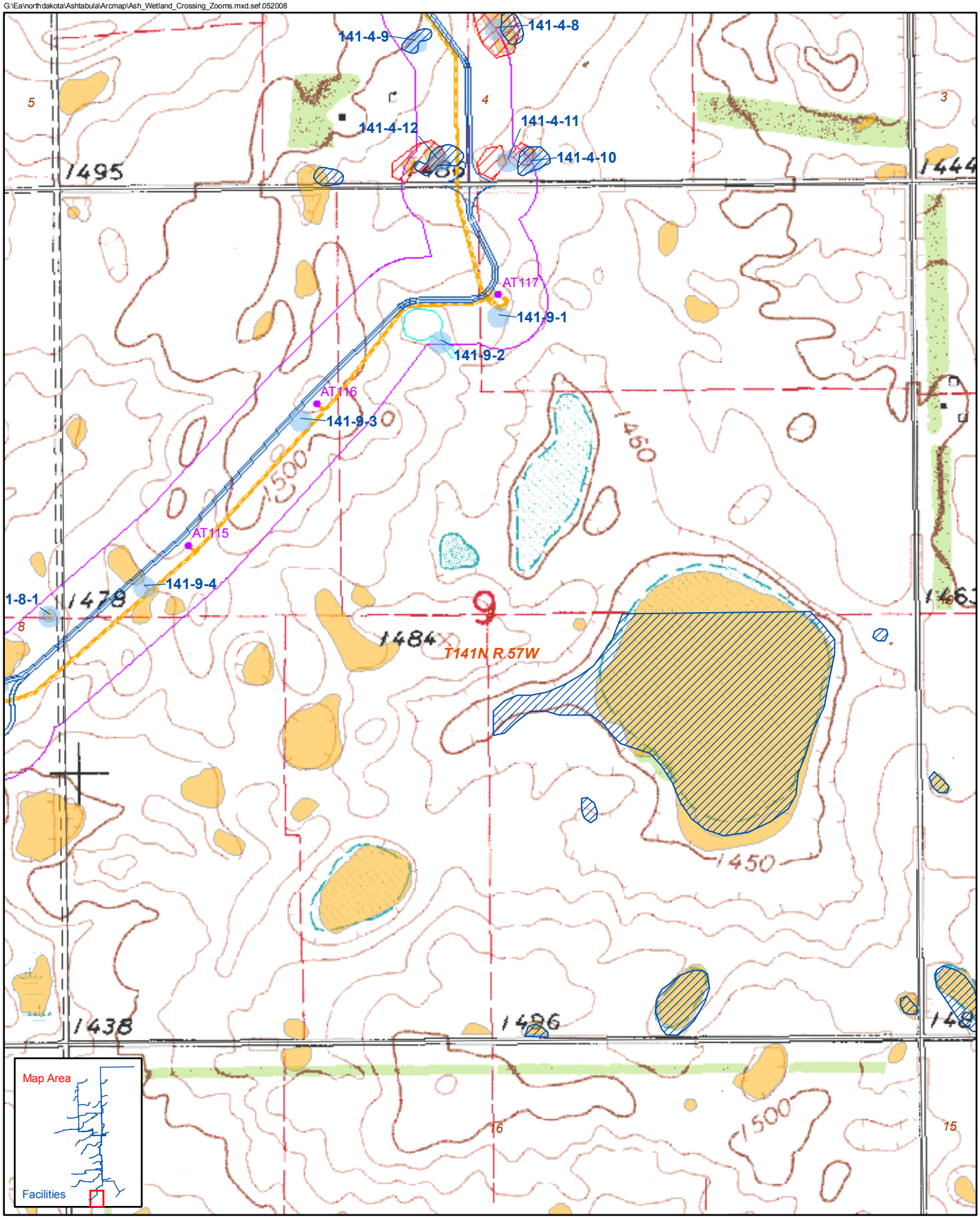

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 9

141-9-1 View Facing South 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-9-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-9-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Plowed Soybean Field
A: Annual
I: Introduced
F: Forb
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	well or moderately wel
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Pachic Hapludolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-9-2 View Facing Southeast 04/30/08

141-9-3 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-9-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-9-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Plowed Wheat Field
A: Annual
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SIOUX**	Drainage Class :	well to excessively
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Entic Hapludolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-9-4 View Facing Northwest 04/30/08

Township 141
Range 57
Section 11

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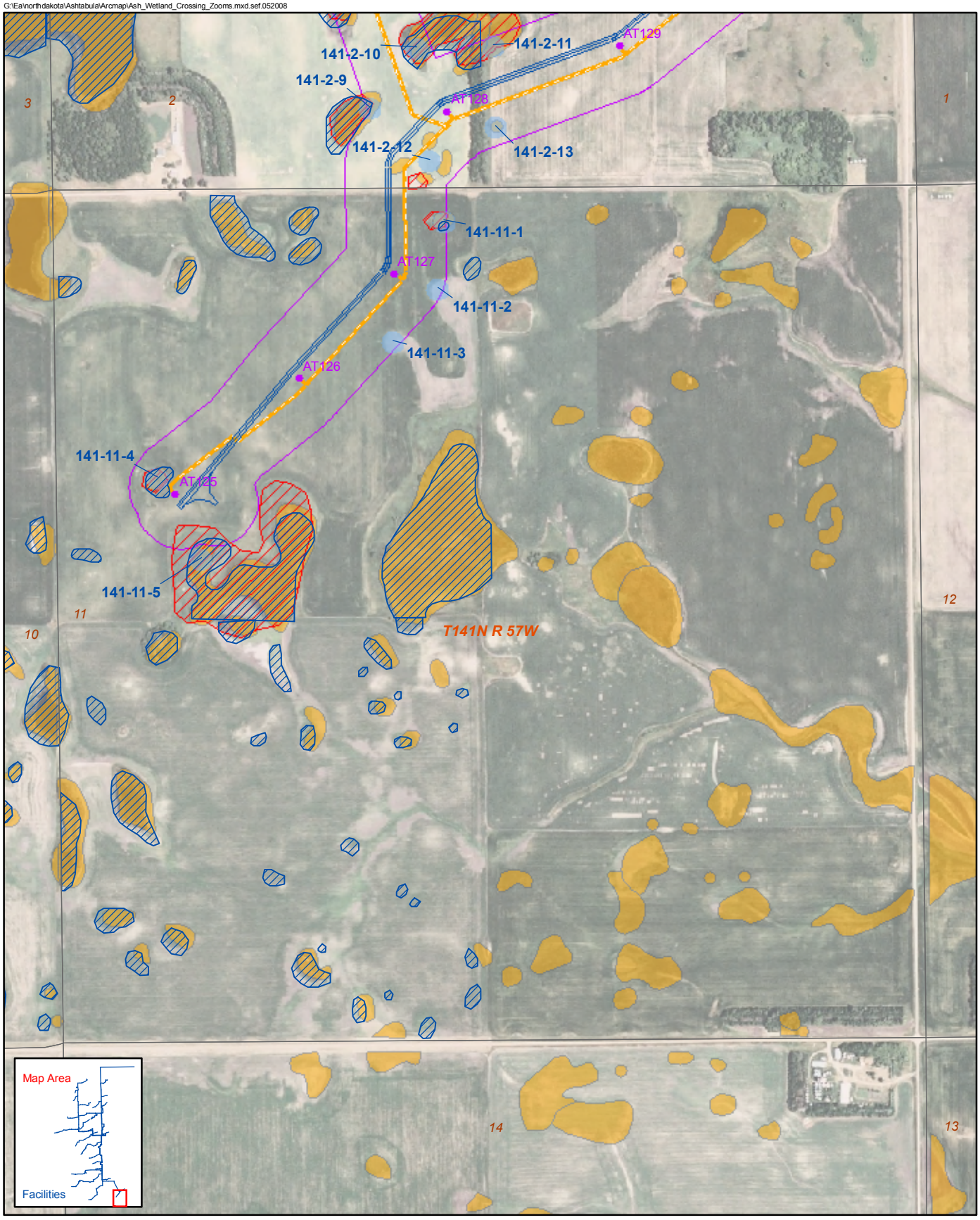

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 11

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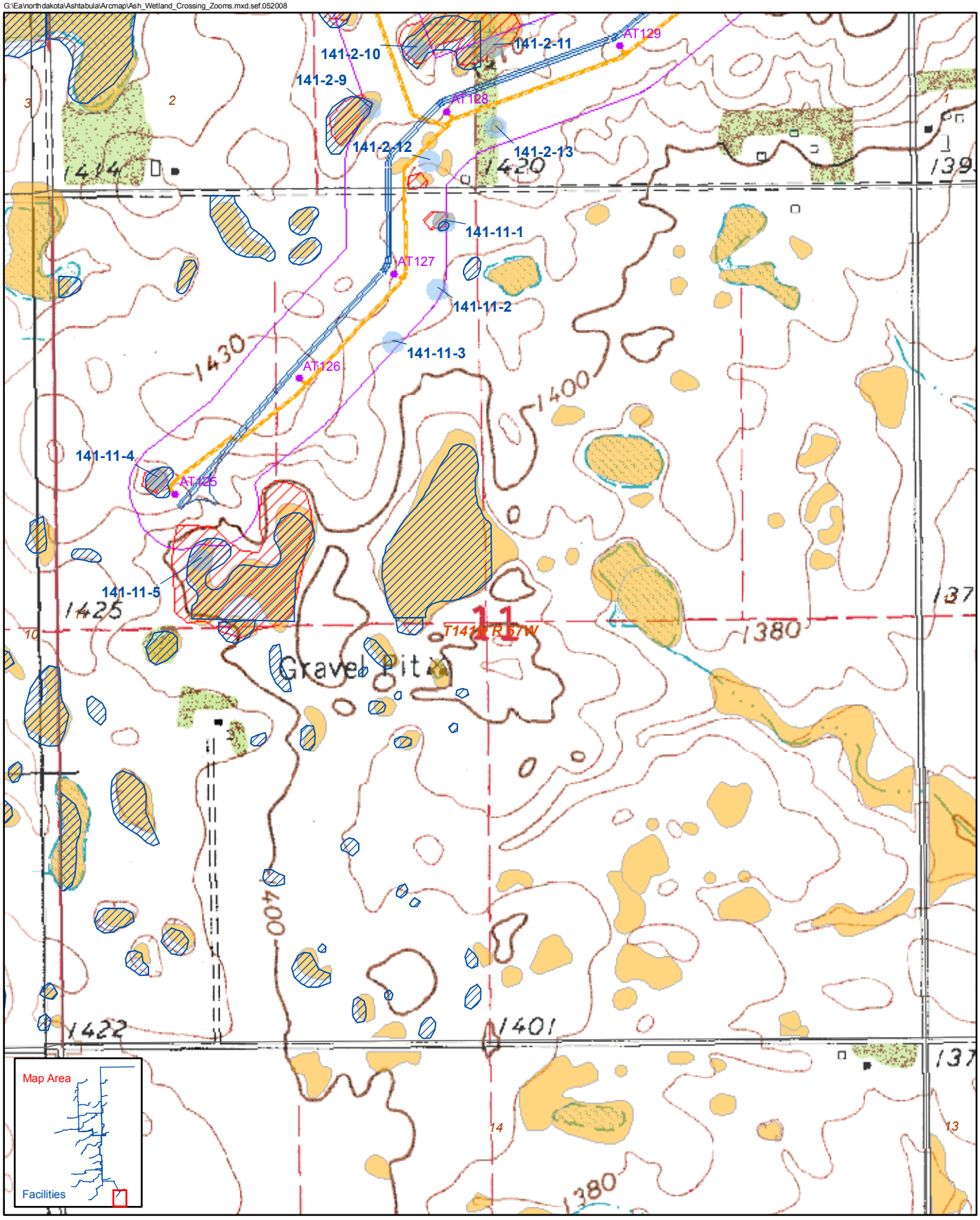

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 141
Section 11

TETRA TECH, INC.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-11-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-11-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Planted Corn Field
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southwest (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC 2msbk
7-13	Bq1	2.5Y3/1			SiC 2msbk
13-16	Bq2	2.5Y4/2			SiC 1msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.
The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would support classification of this area as a Water of the United States.

141-11-1 View Facing Southwest 04/30/08

141-11-2 View Facing Southeast 04/30/08

141-11-3 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-11-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-11-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Polygonum hydropiperoid	PNEF	OBL
Phalaris arundinacea	PNG	FACW+	Salix sp.	NS	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial S: Shrub
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2

Depth to Saturated Soil (inches) : 2

Depth to Free water in Pit (inches) : 2

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5Y2.5/1			SiC 2msbk
7-16	Bq	5Y3/1			SiC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-11-4 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 141-11-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	141-11-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5Y2.5/1			SiC 2msbk
7-16	Bq	5Y3/1			SiC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

141-11-5 View Facing Southeast 04/30/08

Township 142
Range 57
Section 3

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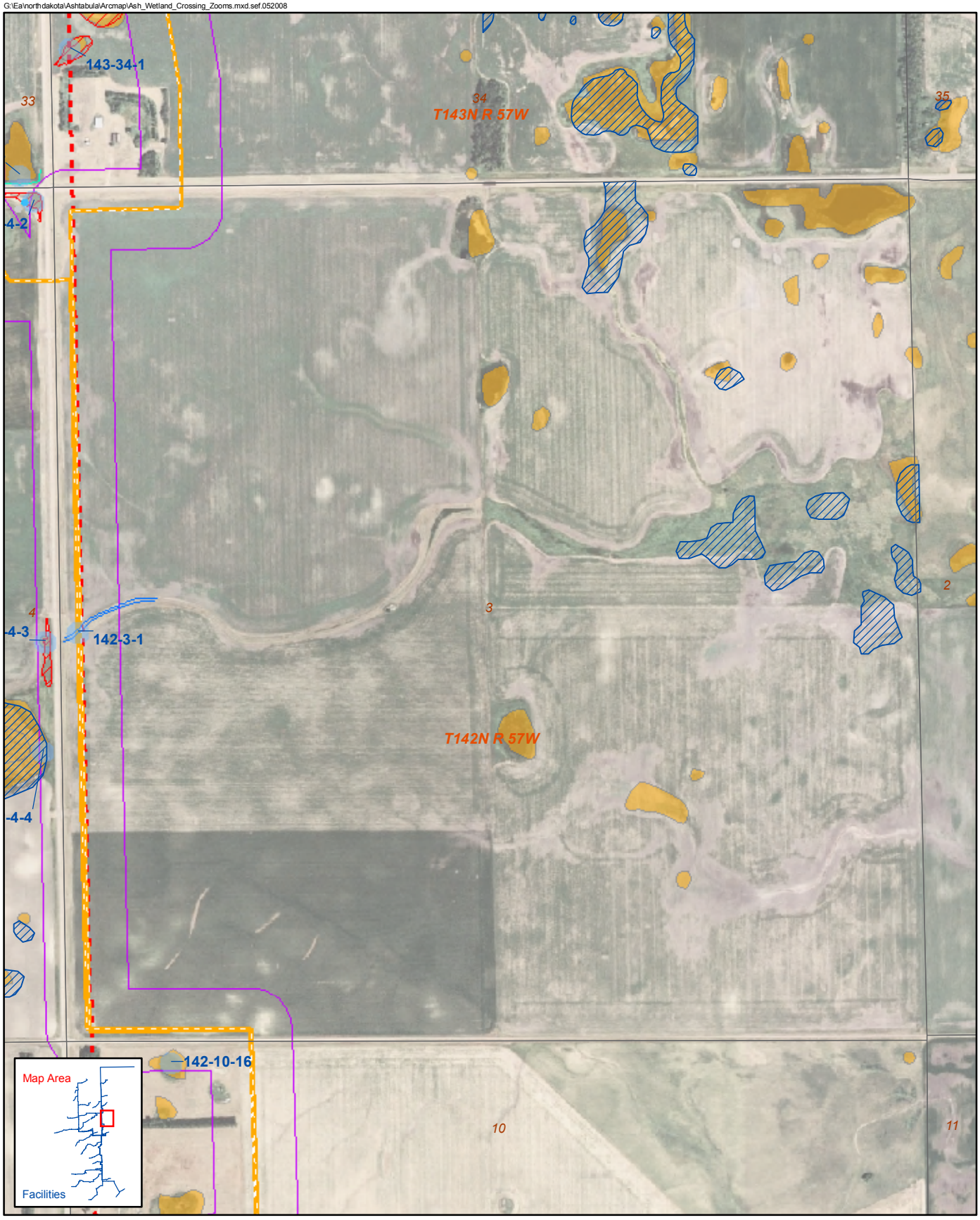

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 3

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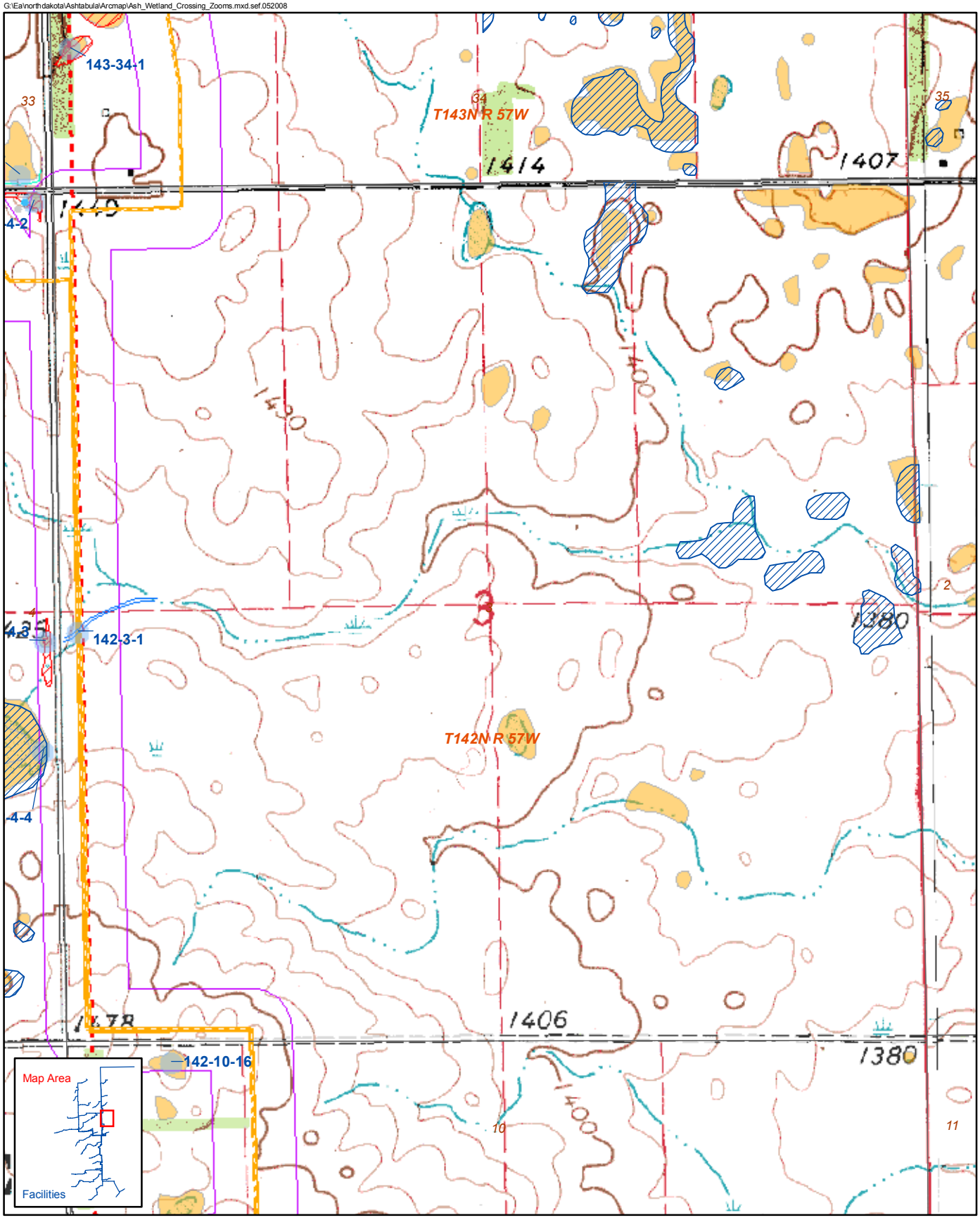

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 3

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-3-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-3-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BALATON**	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-3-1 View Facing East 04/29/08

Township 142
Range 57
Section 4

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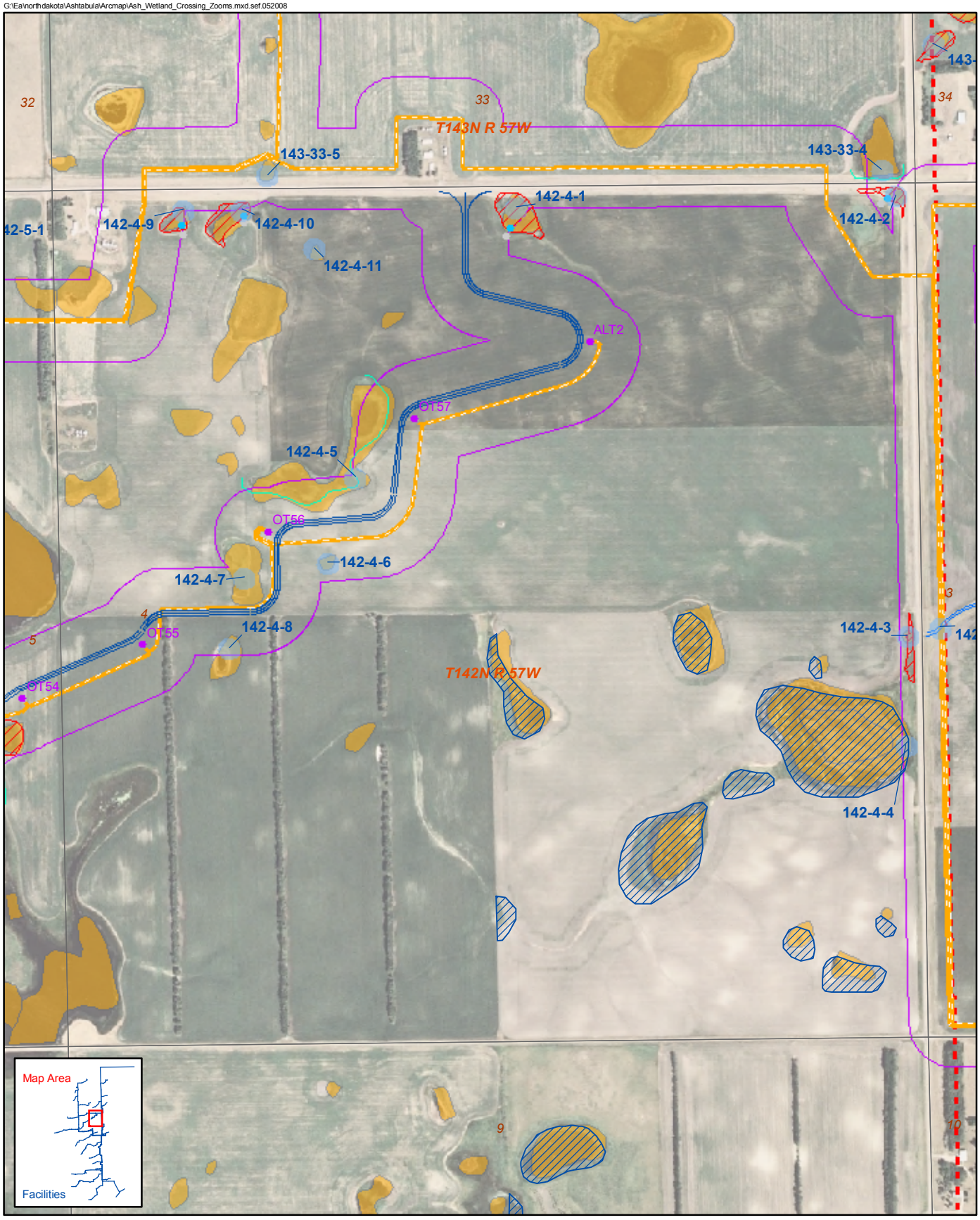

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 4

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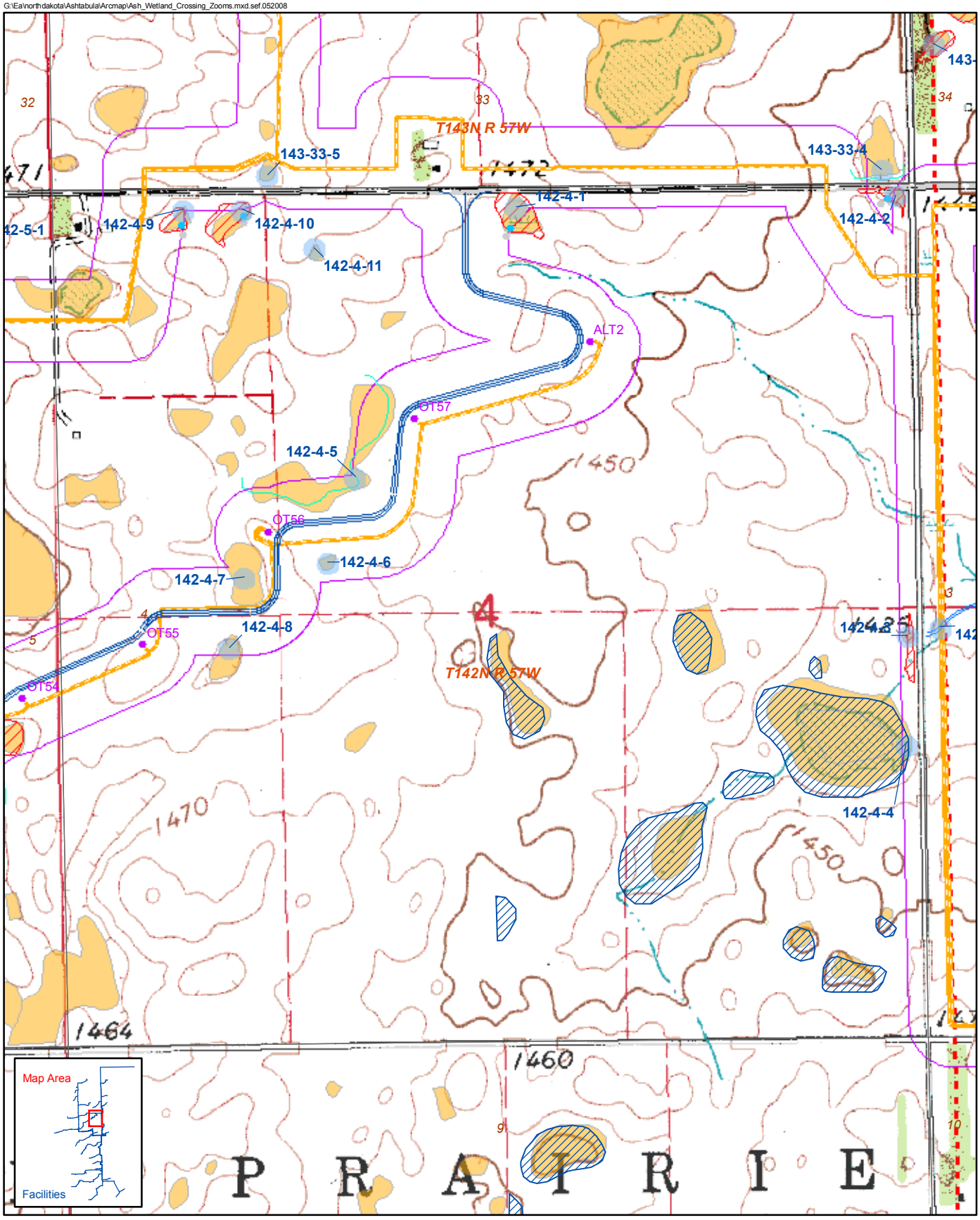

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 4

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-4-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-4-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This wetland area is vegetated in reed grass and cattail. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 3"
- Depth to Free water in Pit (inches) : 3"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☑ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photos: View North (Page 1), View south (Page 1), Upland soils (Page 2), Wetland soils (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	PONDED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y 2.5/1			Sic 2msbk
6-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-4-1 looking north to wetland.

Site 142-4-1 looking south to upland.

Site 142-4-1 upland soil.

Site 142-4-1 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-4-2	Date :	06/04/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-4-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated in reed grass and curly dock. Vegetation dominated by hydrophytes.
P: Perrenial
N: Native
I: Introduced
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :	-
Depth to Saturated Soil (inches) :	10
Depth to Free water in Pit (inches) :	10

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photos: View Northeast (page 1), View Southeast (Page 1), Upland soil (Page 2), Wetland soil (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5y 2.5/1			SicL 2msbk
6-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland perimeter has been impacted by farming.

Site 142-4-2 looking NE to wetland.

Site 142-4-2 looking SE to upland.

Site 142-4-2 upland soil.

Site 142-4-2 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-4-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-4-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattail. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines and inundation indicate the presence of wetland hydrology.
Photo: View looking South.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5y 2.5/1			Sic 1msbk
7-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 142-4-3 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GD/ME	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-4-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial E: Emergent
N: Native F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BALATON**	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-4-4 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-5 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-4-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial E: Emergent
N: Native F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 142-4-5 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-6 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-4-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BALATON**	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-7 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-4-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial G: Grass
N: Native F: Forb
E: Emergent

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 142-4-7 looking NE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-8 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-4-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-4-8 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-4-9	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-4-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass, cattail and the common reed. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 10"
- Depth to Free water in Pit (inches) : 10"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photos: View North (Page 1), View West (Page 1), upland soils (Page 2), and wetland soils (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	2.5y 2/1			Sic 2msbk
7-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-4-9 looking north.

Site 142-4-9 looking west.

Site 142-4-9 upland soil.

Site 142-4-9 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-4-10	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-4-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattail. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 2"
- Depth to Free water in Pit (inches) : 2"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos were taken looking South, West and at the wetland soils.

(Page 1) (Page 1) (Page 2)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			Sic 2msbk
7-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-4-10 looking south.

Site 142-4-10 looking west.

Site 142-4-10 wetland soils.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-4-11 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-4-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

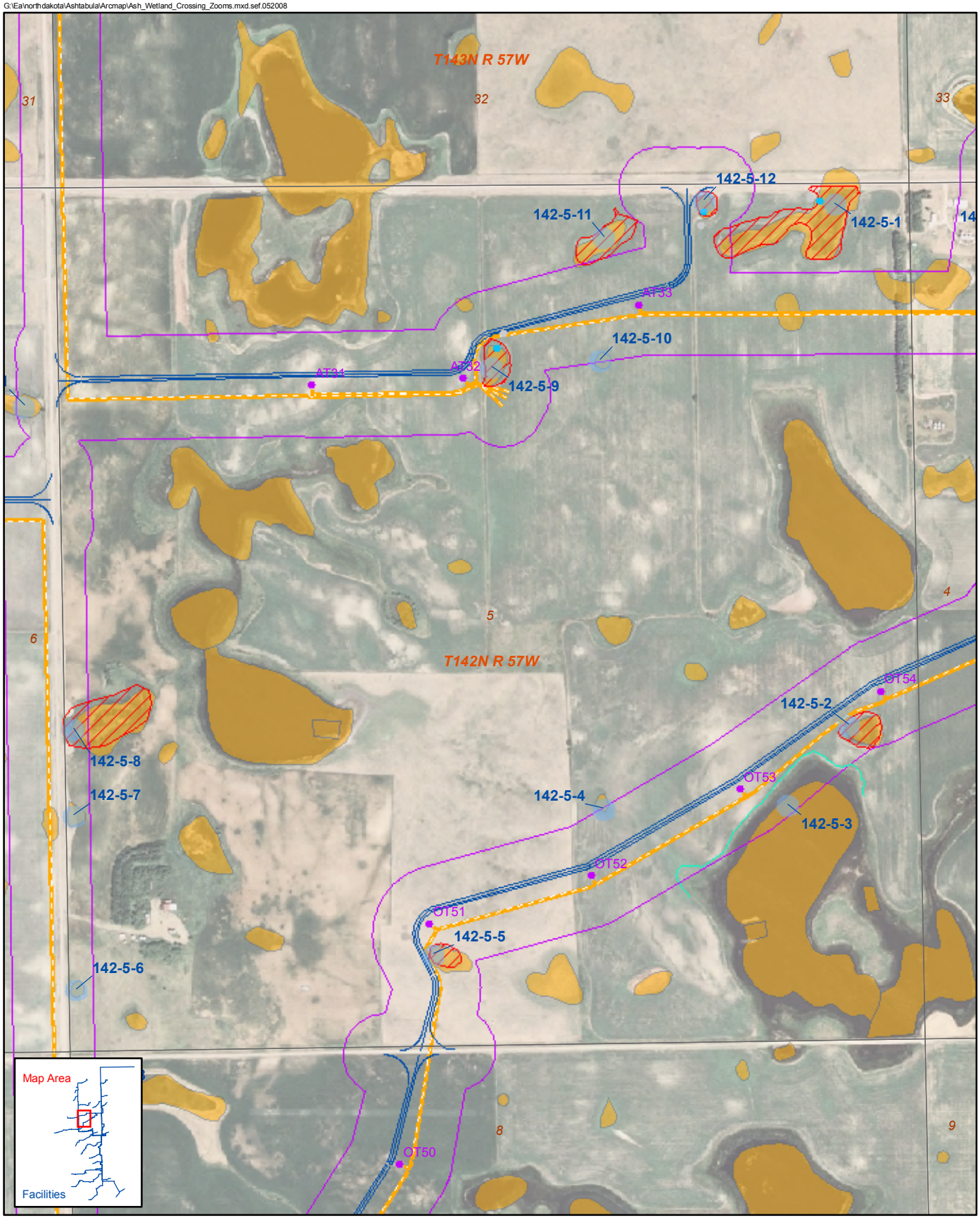
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-4-11 looking east.

Township 142
Range 57
Section 5

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
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0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

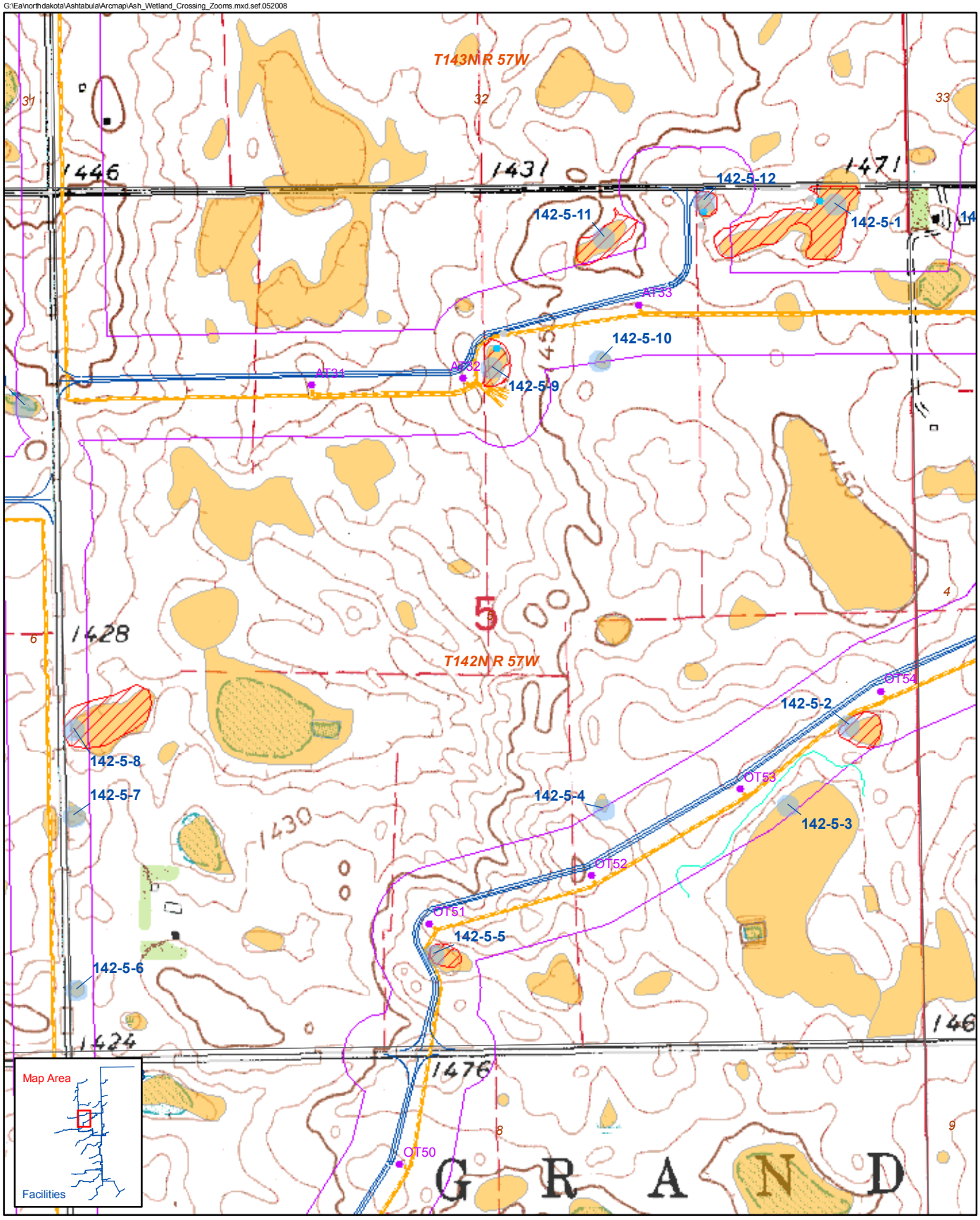
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 5

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 5

TETRA TECH, INC.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-5-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-5-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated in reed grass and cattail. Vegetation dominated by hydrophytes.

P: Perennial P: Perennial
N: Native N: Native
G: Grass E: Emergent
F: Forb

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 2"

Depth to Free water in Pit (inches) : 2"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photos: Photos were taken looking East, Southwest, at the upland soils and the wetland soils.

(Page 1) (Page 1) (Page 2) (Page 2)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5y 2.5/1			Sic 3msbk
6-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-1 looking east.

Site 142-5-1 looking SW.

Site 142-5-1 upland soil.

Site 142-5-1 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-5-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-5-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

At this site in terms of vegetation the wetland area is made up of reed grass and cattails. Vegetation dominated by hydrophytes.

P: Perennial P: Prerennial
N: Native N: Native
G: Grass E: Emergent
F: Forb

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 10"

Depth to Free water in Pit (inches) : 10"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☑ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: One photo was taken at this site looking Southeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			SicL 2msbk
7-16	Bg	5y 2.5/1			SicL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland area is bi-sected by highway.

Site 142-5-2 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-5-3 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-5-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1), View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-3 looking east.

Site 142-5-3 looking south towards turbine site.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-5-4 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-5-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-4 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-5-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-5-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

Site is vegetated in reed grass.
P: Perennial
N: Native
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines and inundation indicate wetland hydrology at this site.
Photo: View looking East.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site has been greatly impacted by livestock.

Site 142-5-5 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-5-6 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-5-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-6 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-5-7 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-5-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-7 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-5-8	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-5-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☐	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This wetland area is vegetated in reed grass and cattail. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 6"

Depth to Free water in Pit (inches) : 6"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos were taken looking East and Southeast.

(Page 1) (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-8 looking east.

Site 142-5-8 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-5-9	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-5-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattails. Vegetation dominated by hydrophytes.

P: Perennial P: Perennial
N: Native N: Native
G: Grass E: Emergent
F: Forb

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 3"

Depth to Free water in Pit (inches) : 3"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Photos were taken looking Northwest and South.

(Page 1) (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			Sic 2msbk
7-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site has been farmed up to perimeter of wetland.

Site 142-5-9 looking NW.

Site 142-5-9 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-5-10 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	
Investigator :		State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-5-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-5-10 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-5-11	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ? ☑	Community ID : 142-5-11
Is the Site Significantly Disturbed (Atypical Situation) ? ☑	Transect ID : T1
Is the Area a Potential Problem Area ? ☑	Plot ID: A
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum SPP.	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat removing any presence of hydrophytic vegetation. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows indications of hydrology.
Photo: View looking Southwest.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. The area has been impacted by farming.

Site 142-5-11 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-5-12	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-5-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This wetland area was vegetated in reed grass, cattails and the common reed. Vegetation dominated by hydrophytes.

P: Perennial P: Perennial P: Perennial
N: Native N: Native N: Native
G: Grass E: Emergent E: Emergent
F: Forb G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 8"

Depth to Free water in Pit (inches) : 8"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photos: View East (Page 1), View North (Page 1), Upland soils (Page 2), Wetland soils (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site has been farmed right to the perimeter of the wetland.

Site 142-5-12 looking east.

Site 142-5-12 looking north.

Site 142-5-12 upland soil.

Site 142-5-12 wetland soil.

Township 142
Range 57
Section 6

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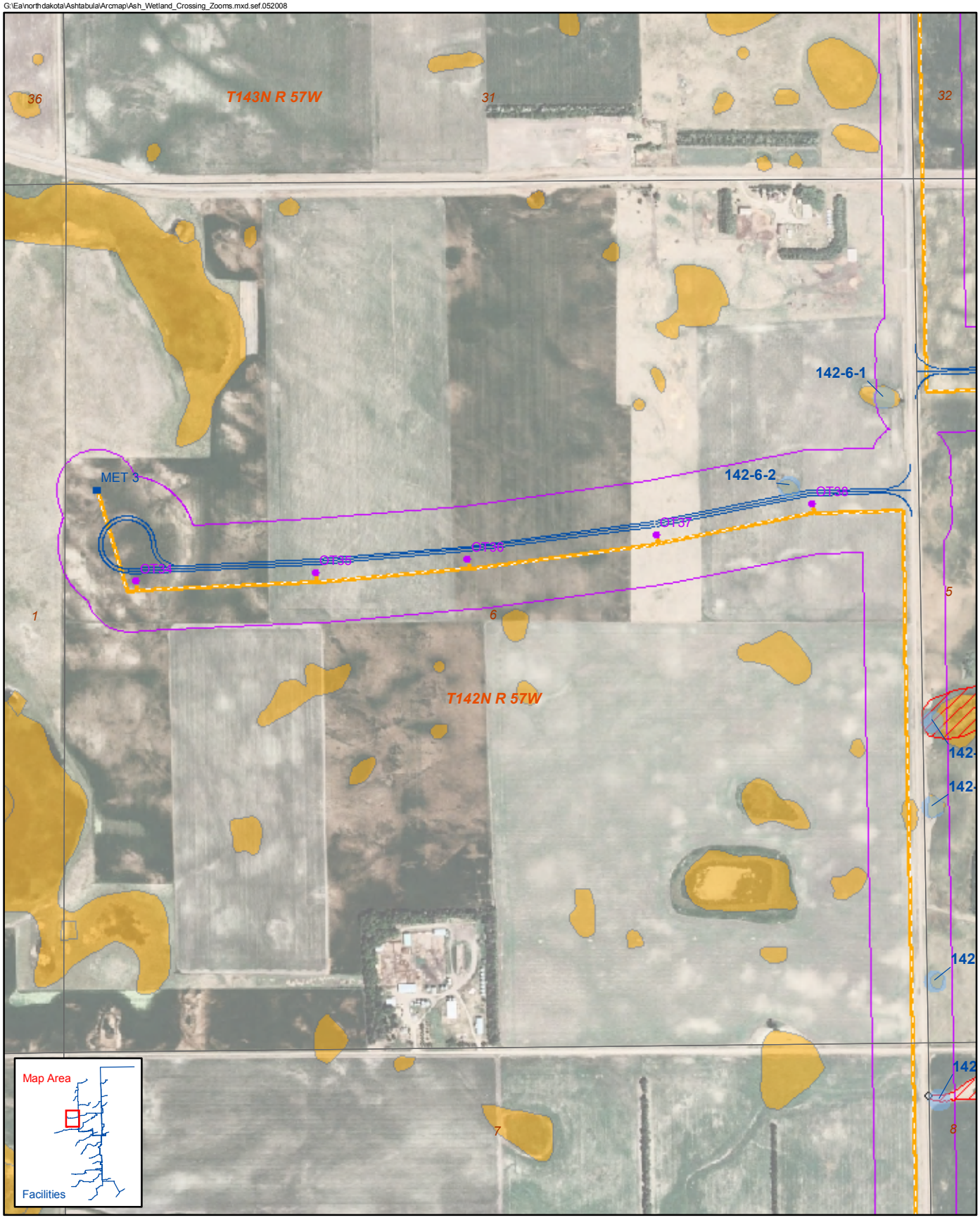

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 6

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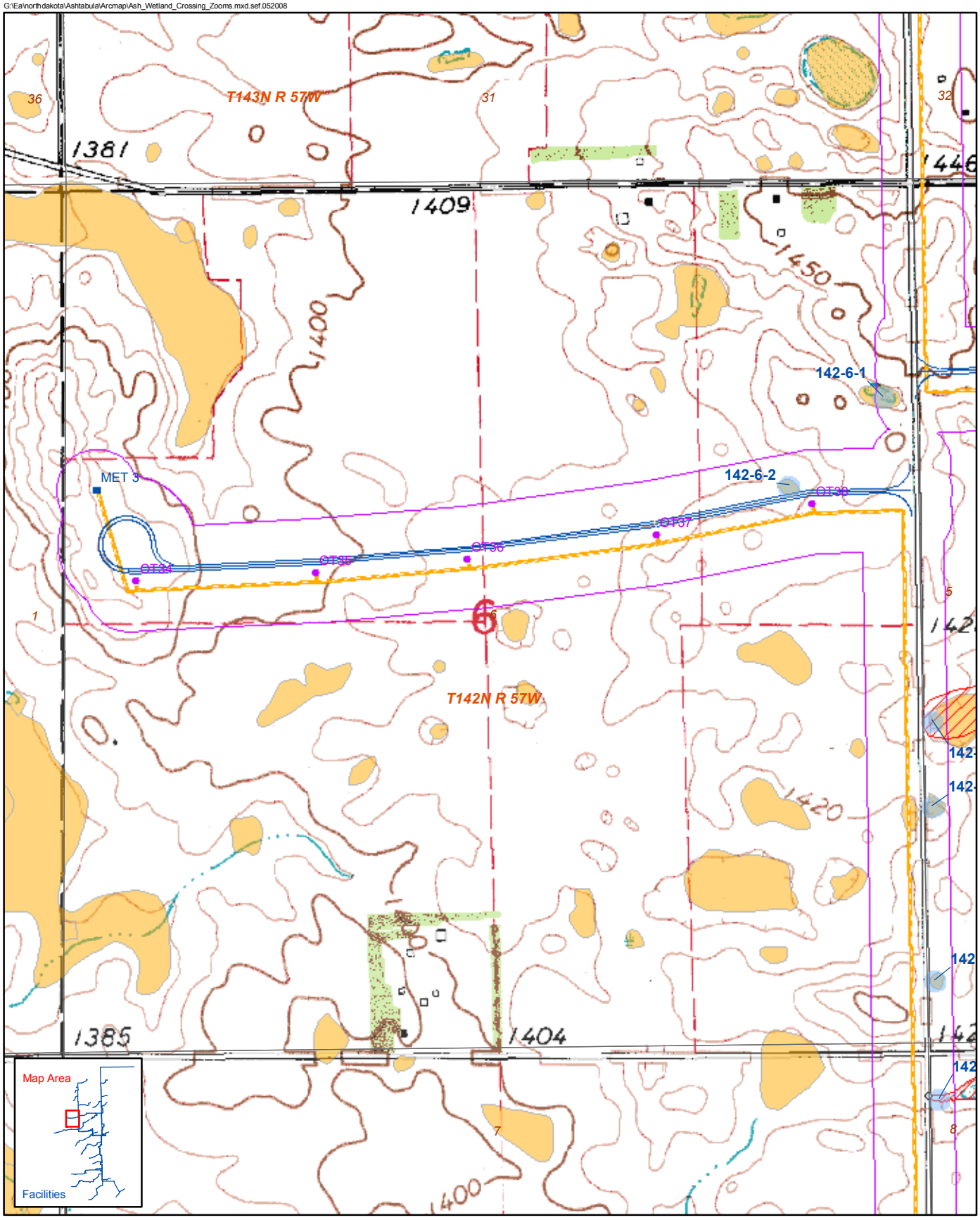

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 6

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-6-1 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-6-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-6-1 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-6-2 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-6-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: No Photo available

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Township 142
Range 57
Section 7

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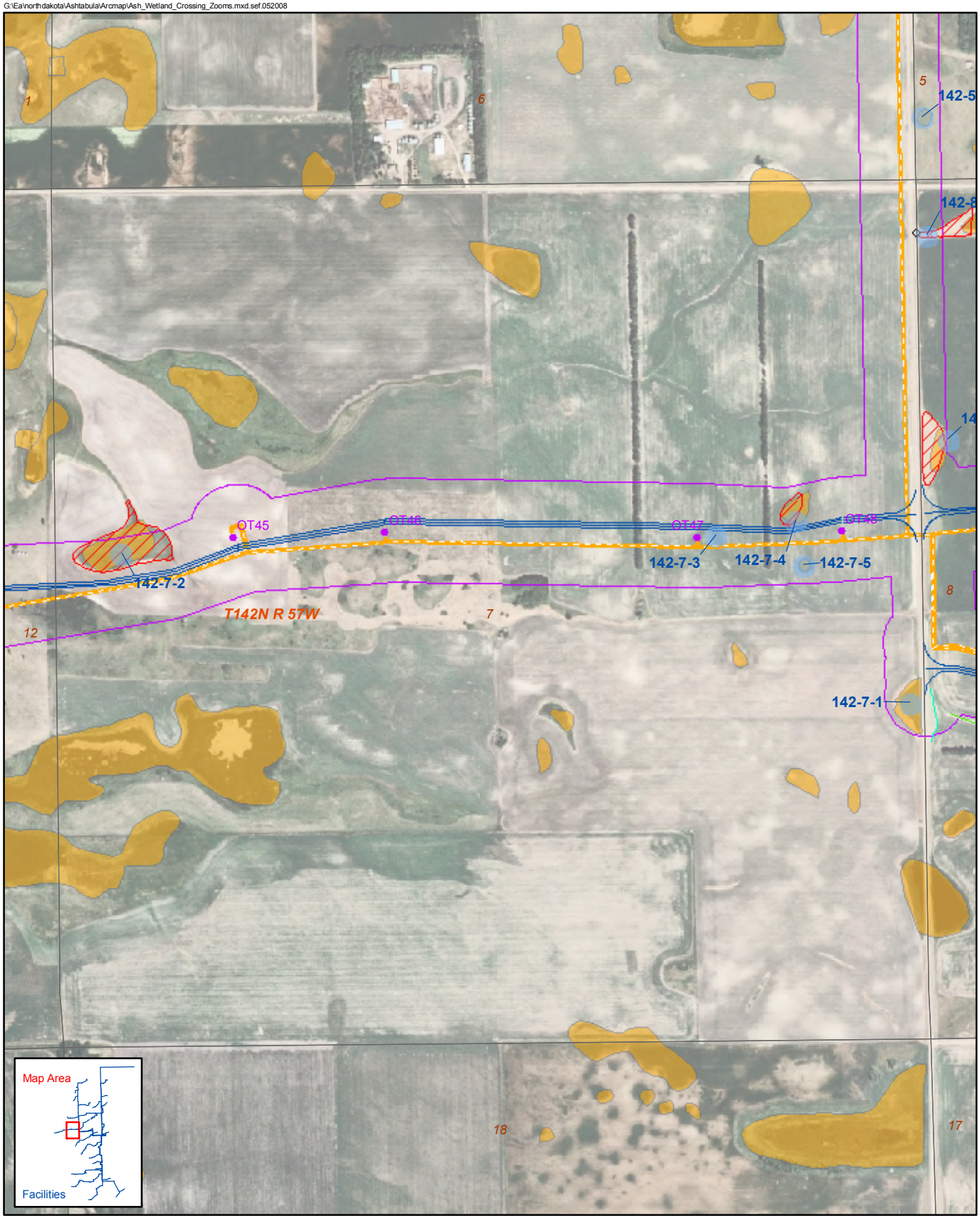

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 7

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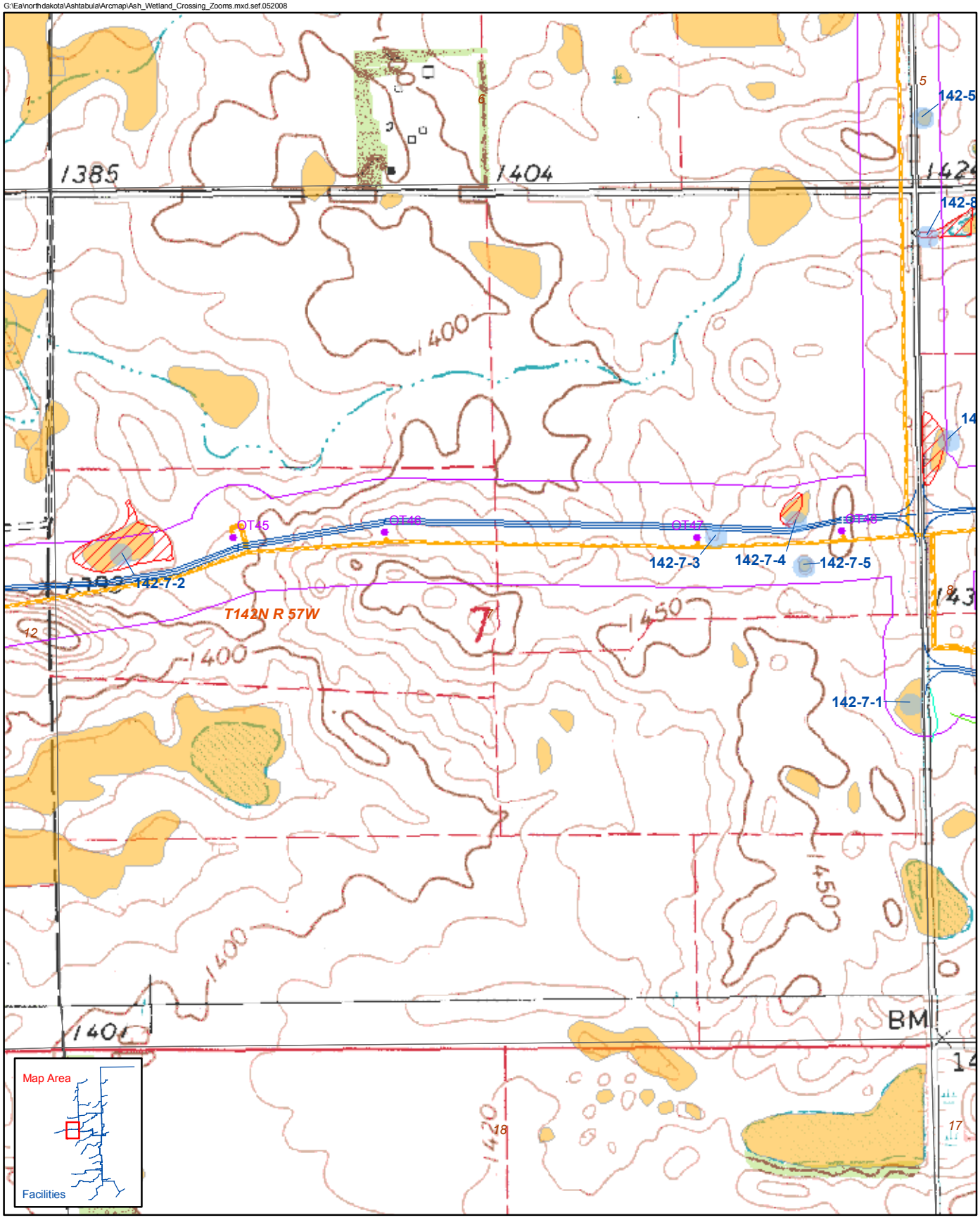

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 7

TETRA TECH, INC.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-7-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-7-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Polygonum pensylvanicur	ANEF	FACW	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

A: Annual N: Native
E: Emergent P: Perennial
F: Forb
G: Grass
I: Introduced

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-7-1 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-7-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-7-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Phragmites australis	PNEG	FACW
Rumex crispus	PIF	FACW	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland seems highly productive with an abundance of wetland vegetation, reed grass, cattails, curly dock and the common reed make up the vegetation of this site.

P: Perennial	P: Perennial	P: Perennial	P: Perennial
N: Native	N: Native	I: Introduced	N: Native
G: Grass	E: Emergent	F: Forb	E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 8"
- Depth to Free water in Pit (inches) : 8"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photos: View North (Page 1), View West showing ruts in the wetland where there is a proposed road crossing (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-5	A	5y 2.5/1			Sic 2msbk
5-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-7-2 looking south.

Site 142-7-2 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-7-3 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-7-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-7-3 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-7-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-7-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☑	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum SPP.	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat removing any presence of hydrophytic vegetation. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines on site indicate wetland hydrology.
Photo: View looking Northwest.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10yr 2/1			SiL 2msbk
7-16	E	2.5y 3/1			Sil 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland area has been impacted by farming.

Site 142-7-4 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-7-5 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	
Investigator :		State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-7-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Southwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

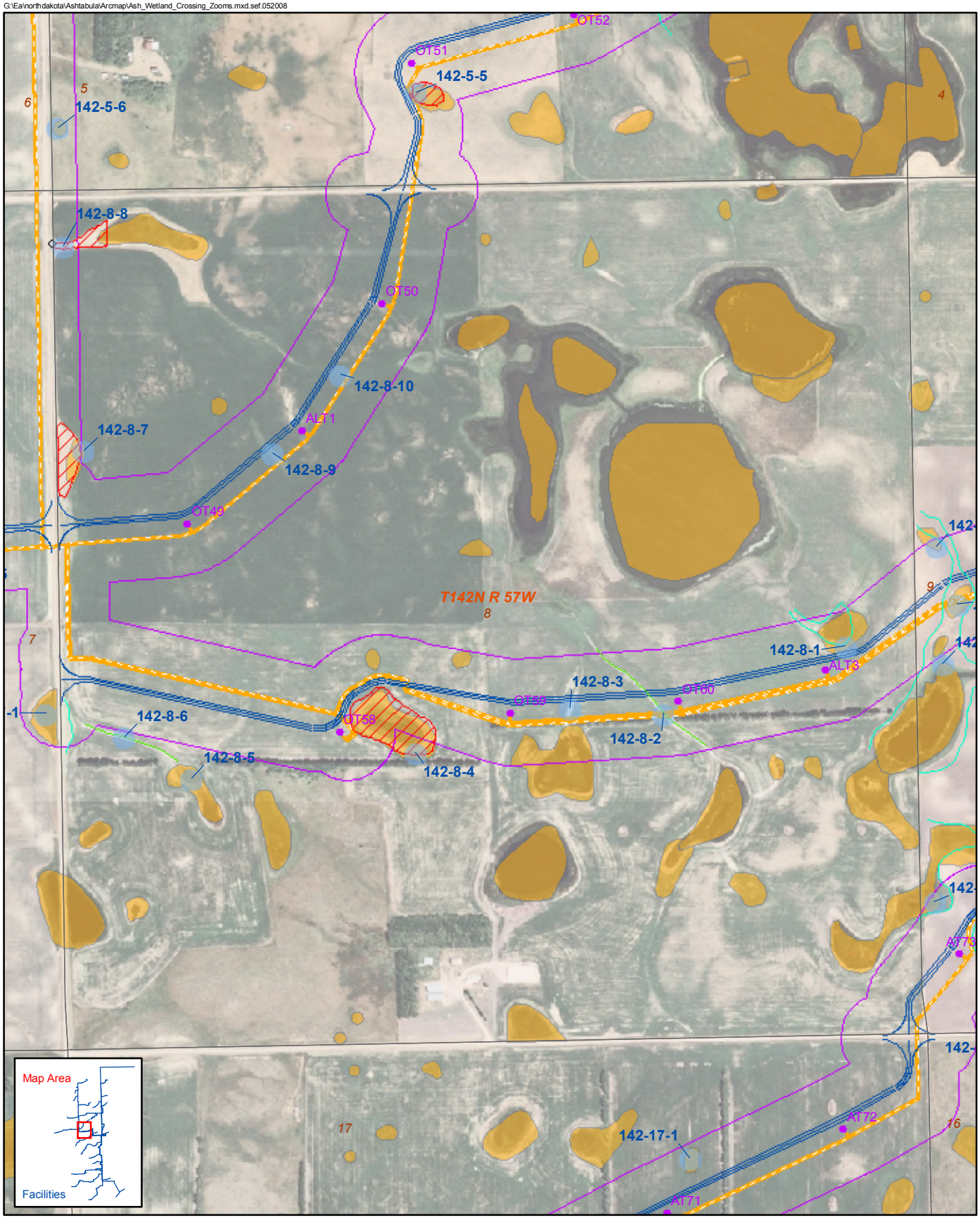
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-7-5 looking SW.

Township 142
Range 57
Section 8

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 8

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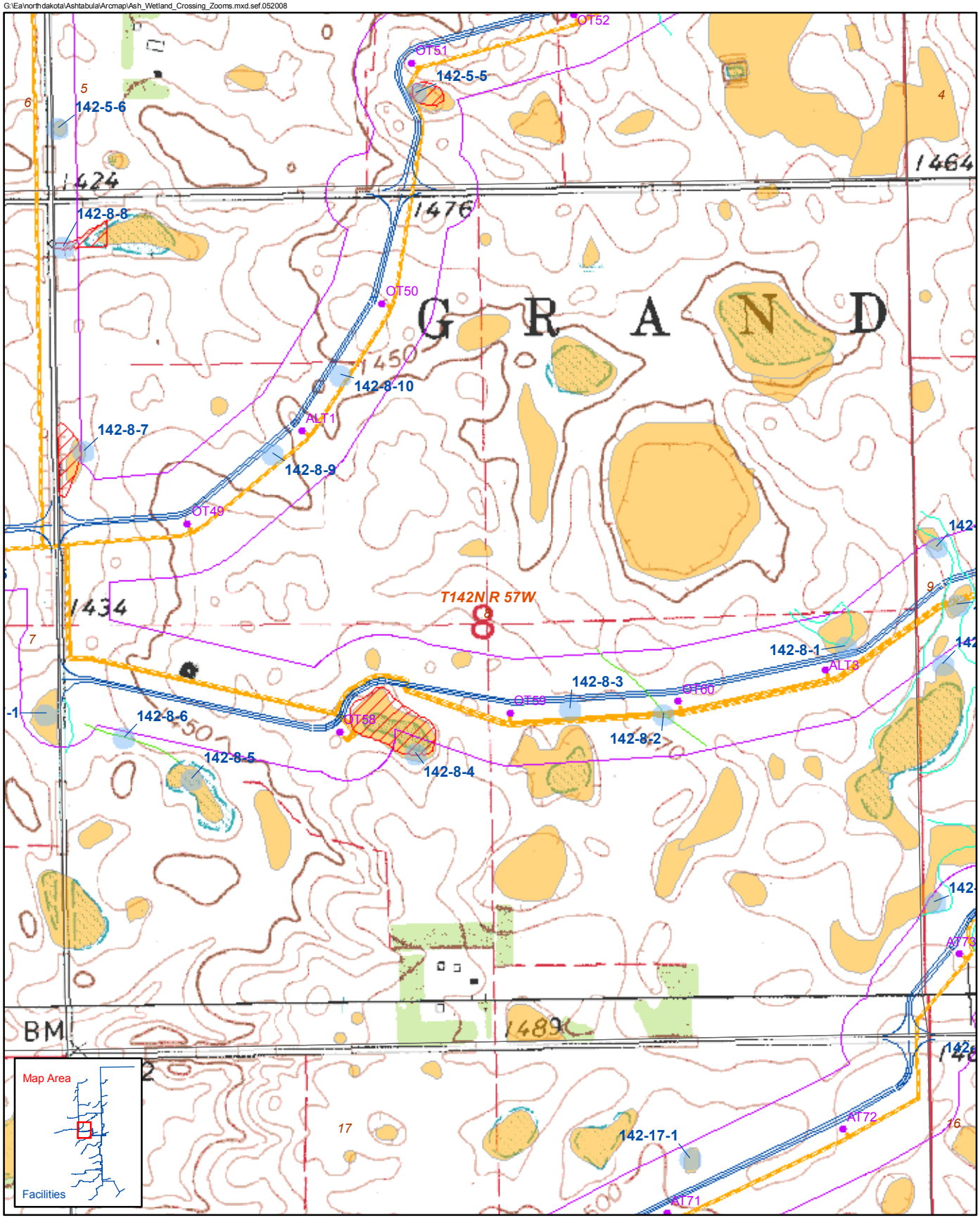

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 8

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Triticum sp.	G	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

This is a plowed wheat field.

E: Emergent N: Native
F: Forb P: Perennial
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SIOUX-RENSHAW**	Drainage Class :	Somewhat excessively
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ENTIC/CALCIC HAPLUDOL	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as non-hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	No		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-1 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

This is a non-wetland swale that has been farmed through. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-SVEA**	Drainage Class :	Moderately well to well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/PACHIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as non-hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	No		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-2 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-3	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Triticum sp.	G	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

E: Emergent
F: Forb
G: Grass
N: Native
P: Perennial

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	Moderately well to well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/PACHIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by the NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-3 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-4	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phragmites australis	PNEG	FACW	Typha angustifolia	PNEF	OBL
Phalaris arundinacea	PNG	FACW+	Polygonum pensylvanicur	ANEF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

A: Annual P: Perennial
E: Emergent
F: Forb
G: Grass
N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2.5

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	2.5Y2.5/1			SiL 2msbk
7-16	E	2.5Y3/1			SiL 1mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-4 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-5	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

Farmer plants through the wetland.

E: Emergent P: Perennial
F: Forb
N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BALATON**	Drainage Class :	Moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-5 View Facing Southeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-6	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

Farmer plants through the wetland.

E: Emergent P: Perennial
F: Forb
N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-6 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-8-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-8-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

Site is vegetated in reed grass.
P: Perennial
N: Native
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows no indications of wetland hydrology.
Photo: View looking East.

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5Y 2.5/1			Sic 2msbk
6-13	Bg1	2.5y 3/1			Sic 3msbk
13-16	Bg2	2.5y 3/1			Sic 2msbk gypsum

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site feature is grass swale.

Site 142-8-7 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-8-8	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-8-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Phragmites australis	PNEG	FACW
Rumex crispus	PIF	FACW	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This wetland is vegetated by reed grass, cattail, curly dock and the common reed. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
I: Introduced
E: Emergent

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : 8"

Depth to Free water in Pit (inches) : 8"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos were taken looking East and South East.

(Page 1) (Page 2)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-8-8 looking east.

Site 142-8-8 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-9 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-8-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-8-9 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-10 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-8-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

SIte has been farmed in Soy beans . Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
F: Forb
H: Slightly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site is a farmed swale.

Site 142-8-10 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-8-11	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-8-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This is a plowed corn field. Vegetation dominated by non-hydrophytes.

A: Annual G: Grass P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

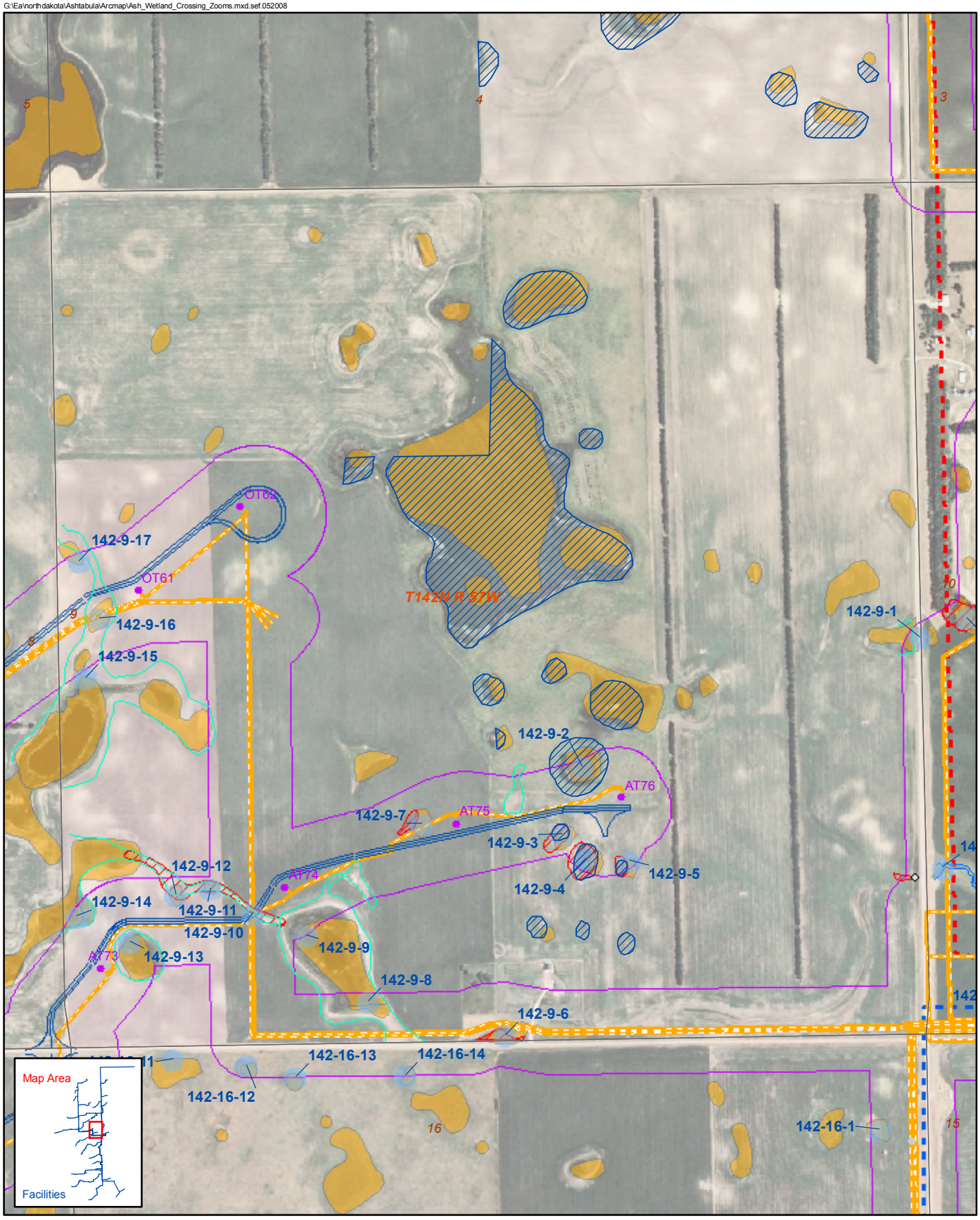
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-8-11 View Facing South 04/28/08

Township 142
Range 57
Section 9

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

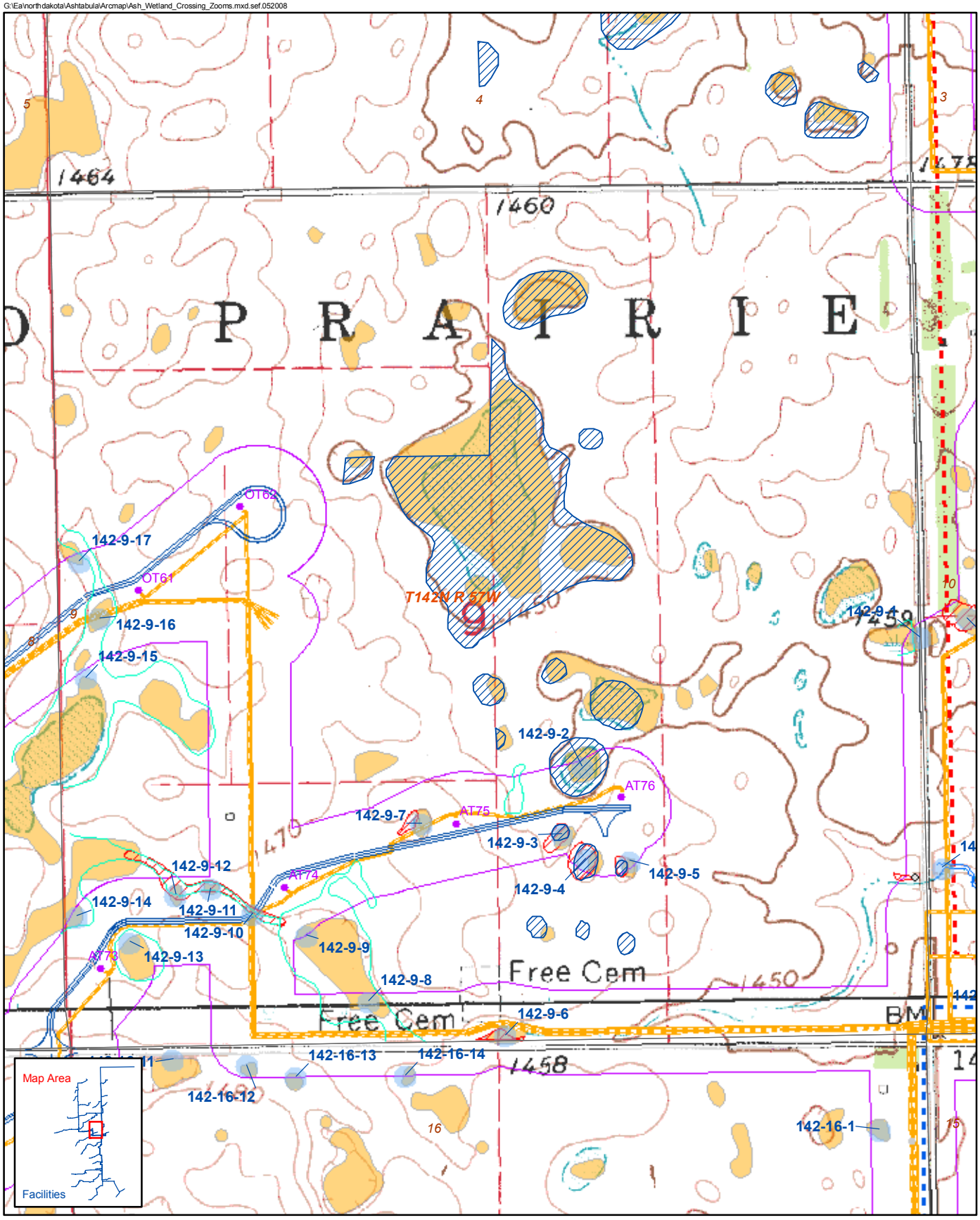
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 9

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

TETRA TECH, INC.

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 9

Site 142-9-1 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-9-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Rumex crispus	PIF	FACW	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

A: Annual N: Native
E: Emergent P: Perennial
F: Forb
G: Grass
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-2 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

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Project/Site :	Ashtabula LLC 142-9-3	Date :	04/28/2008
Applicant/Owner :	FLP	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-9-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine Max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.
Recently farmed bean field around the cattail.

P: Perennial A: Annual
N: Native I: Introduced
E: Emergen H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**LANONA-SWENODA**	Drainage Class :	Well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/PACHIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-3 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-9-4	Date :	04/28/2008
Applicant/Owner :	FLP	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Polygonum pensylvanicur	ANEF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native I: Introduced
E: Emergent A: Annual

HYDROLOGY

- ◉ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	2.5 Y 3/1			SICL 2 msbk
7-16	Bq	3 Y 2.5/1			SICL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. There were no concretions.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-4 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-9-5	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

This is a plowed soybean field.

A: Annual
F: Forb
H: Partly Woody
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10YR2/1			SiCL 2msbk
7-13	E1	2.5Y3/1			SiCL 2mpl
13-16	E2	2.5Y4/2			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-5 View Facing Southeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-9-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ? ☐	Community ID : 142-9-6
Is the Site Significantly Disturbed (Atypical Situation) ? ☐	Transect ID : T1
Is the Area a Potential Problem Area ? ☑	Plot ID: A
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Site shows presence of cattails that have been mowed over. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
F: Forb

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate hydrology on the site.
Photo: View looking East.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 3/1			SicL 2msbk
7-16	Bg	5y 2.5/1	10yr 4/4	1mf	SicL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site is a ditch on side of road.

Site 142-9-6 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-9-7	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-9-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Recently farmed soybean field.

A: Annual
I: Introduced
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10 YR 2/1			SIL 2 msbk
7-16	E	2.5 Y 3/1	10 YR 4/4	3fd	SIL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-7 View Facing Northeast 04/28/08

142-9-8/9 View Facing Southeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-9-8/9	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-8/9
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix lutea	NS	FACW+	Phragmites australis	PNEG	FACW
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native S: Shrub
E: Emergent I: Introduced
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

Site 142-9-10,11 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-9-12	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-9-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Rumex crispus	PIF	FACW
Phalaris arundinacea	PNG	FACW+	Schizachyrium scoparium	PNG	FACU

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 66.67%

Remarks :

Recently farmed bean field.

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

A: Annual N: Native
I: Introduced G: Grass
F: Forb P: Perennial

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2.5/1			SIC 2 msbk
7-16	Bq	2.5 Y 3/1	10 YR 4/4	1 mf	SIC 2 mpr

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-9-12 View Facing Northeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-9-13	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Water is present in the center of a pothole.
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-9-13 View Facing Northeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	ashtabula LLC 142-9-14	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-14
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha angustifolia	PNEF	OBL
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes. Normal circumstances are present.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Water present in center of pothole.
Photo: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-9-14 View Facing North 04/28/08

142-9-14 View Facing South 04/28/08

142-9-14 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-9-15	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-9-15
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Rumex crispus	PIF	FACW	Typha angustifolia	PNEF	OBL
Phalaris arundinacea	PNG	FACW+	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

E: Emergent P: Perennial
F: Forb
G: Grass
I: Introduced
N: Native

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1)

142-9-15, 16 and 17 were consolidated to one plot (142-9-15).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

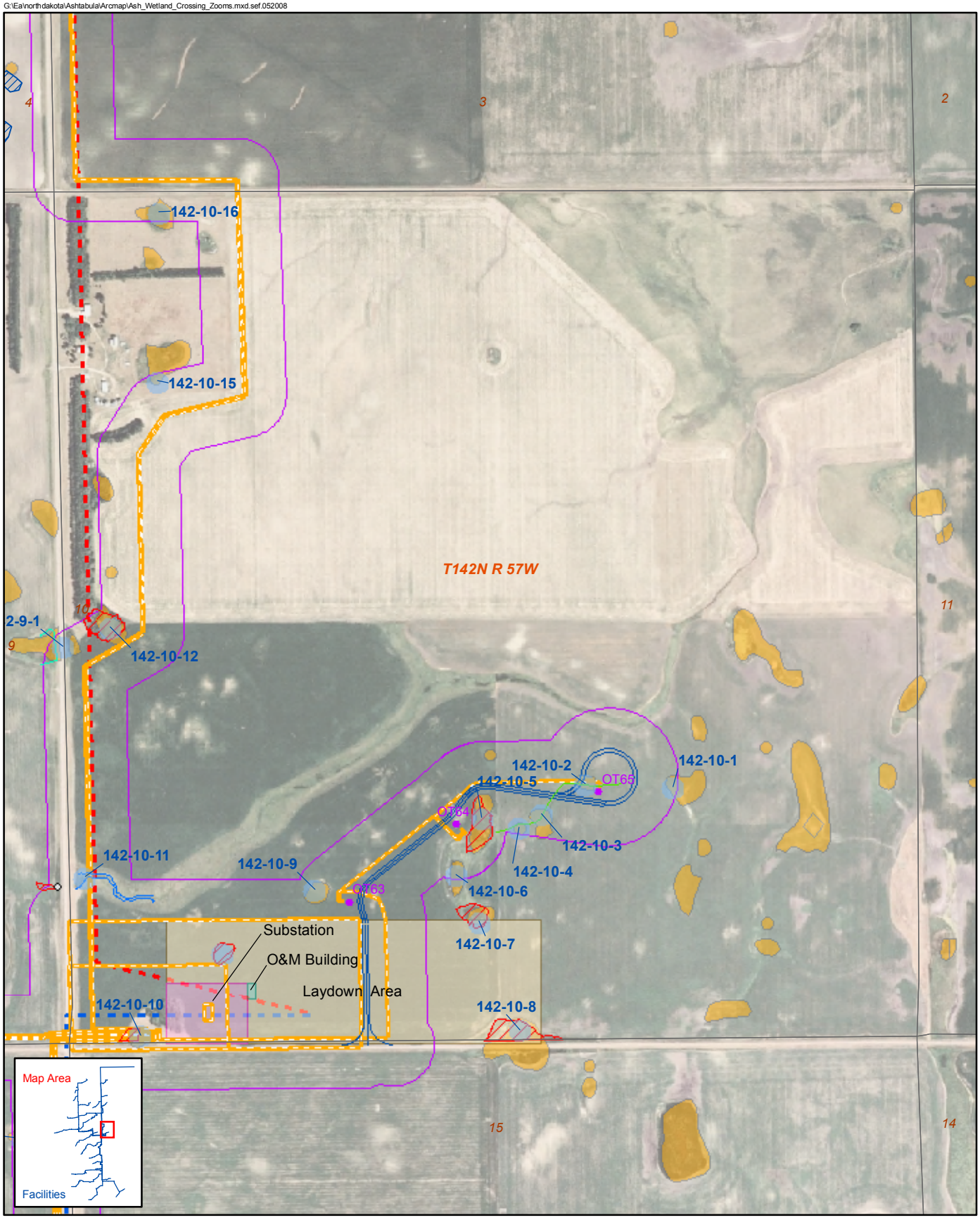
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-9-15 View Facing Southwest 04/28/08

Township 142
Range 57
Section 10

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 10

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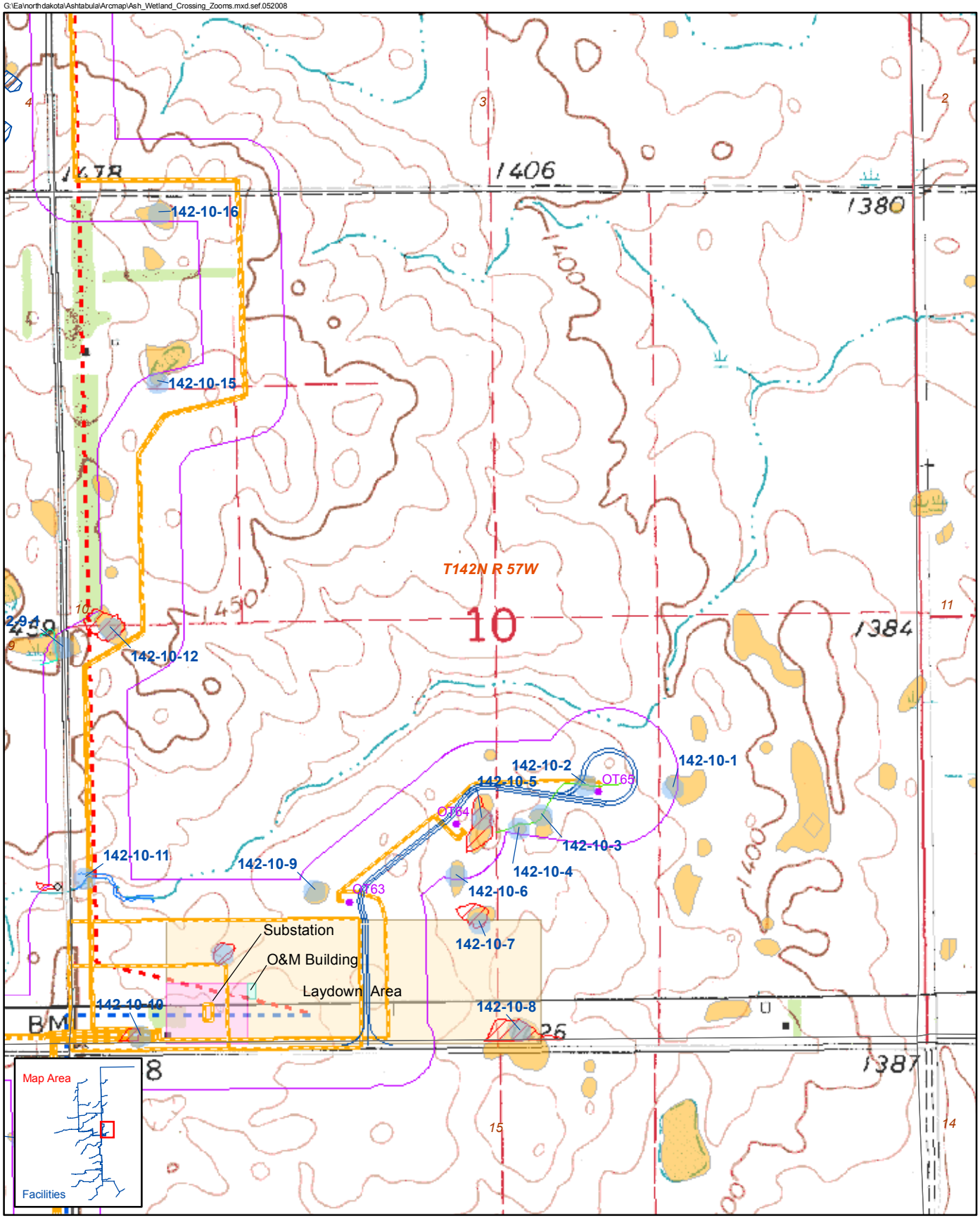


June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 10

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
A: Annual
I: Introduced
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Argiaquic Argialbolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-1 View Facing East 04/29/08

142-10-2 View Facing North 04/29/08

142-10-3 View Facing North 04/29/08

142-10-3 View Facing North 04/29/08

142-10-3 View Facing South 04/29/08

142-10-4 View Facing North 04/29/08

142-10-4 View Facing North 04/29/08

142-10-4 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW	Rumex crispus	PIF	FACW
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial I: Introduced
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-5	A	2.5 Y 3/1			SICL 2 msbk
5-16	Bq	5 Y 2.5/1			SICL 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-10-5 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial I: Introduced
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-10-6 View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phalaris arundinacea	PNG	FACW+	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native
E: Emergent
F: Forb
I: Introduced

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 3/1			SiC 2 msbc
6-16	Bg	2.5 Y 2.5/1			SIC 3 csbk

Hydric Soil Indicators

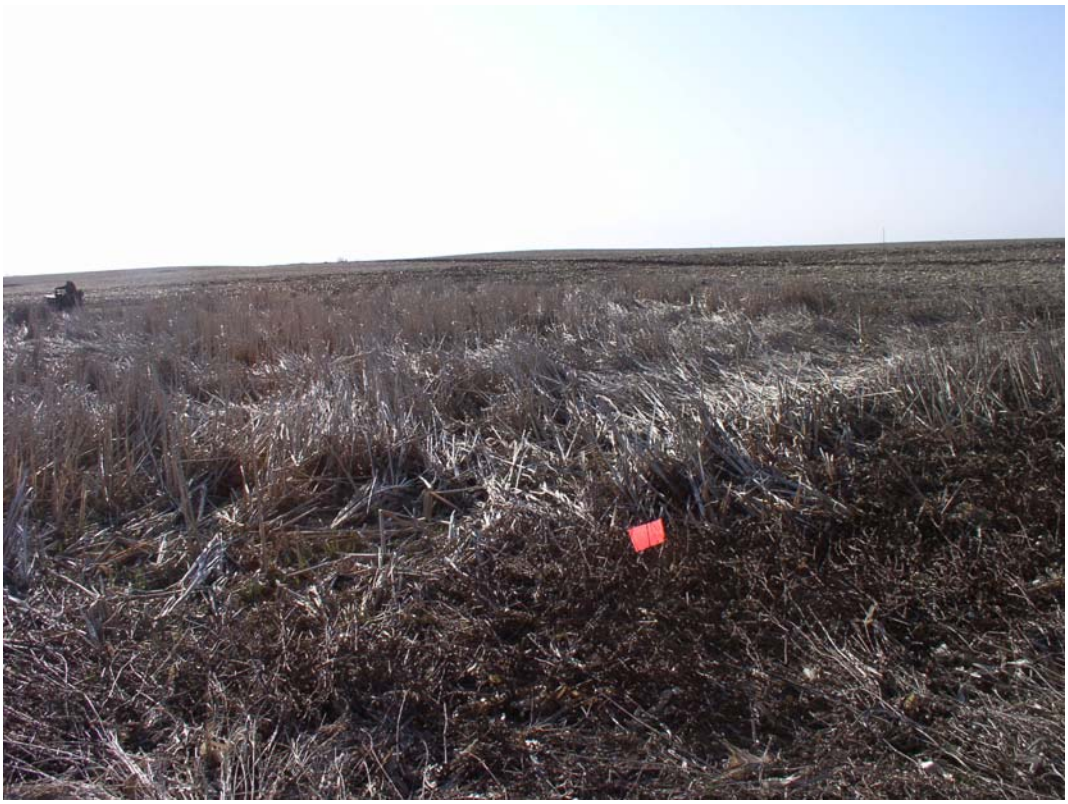
- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Hydric soil was determined to be present based on low chroma within 12 inches of the surface. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.



142-10-7 View Facing Southeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes. Normal circumstances are present.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y 2.5/1			SIC 2 msbk
6-16	Bq	5Y 2.5/1			SIC 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-10-8 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-9	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	10 YR 2/1			SiCL 1 msbk
6-16	E	2.5 Y 2.5/1			SIC 3 cpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soils may also contain Calcic Natrudolls. Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-9 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-10	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial I: Introduced
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 3/1			SIC 2 msbk
6-16	Bq	5 Y 2.5/1			SIC 3 fsbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soils may also contain Argiaquic Argialbolls. Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-10 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-11	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Spartina pectinata	PNG	FACW	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BALATON**	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Vertic Argiaquolls . Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-11 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-12	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**VALLERS, BOULDERY**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-12 View Facing Northwest 04/29/08

142-10-14 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-15	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-15
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW	Spartina pectinata	PNG	FACW
Cyperus esculentus	PNGL	FACW	Polygonum hydropiperoid	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass
I: Introduced
GL: Grasslike

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	well or moderately wel
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Pachic Hapludolls . Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-15 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-16	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-16
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-10-16 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-10-17	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GD/ME	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-10-17
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Polygonum pensylvanicur	ANEF	FACW	Phalaris arundinacea	PNG	FACW+
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

Site was formerly 142-10-9.
A: Annual P: Perennial
N: Native G: Grass
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	10YR2/1			Sicl 1msbk
6-16	E	2.5Y2.5/1			Sic 3cpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site was formerly 142-10-9.

142-10-17 View Facing North 04/29/08

Township 142
Range 57
Section 16

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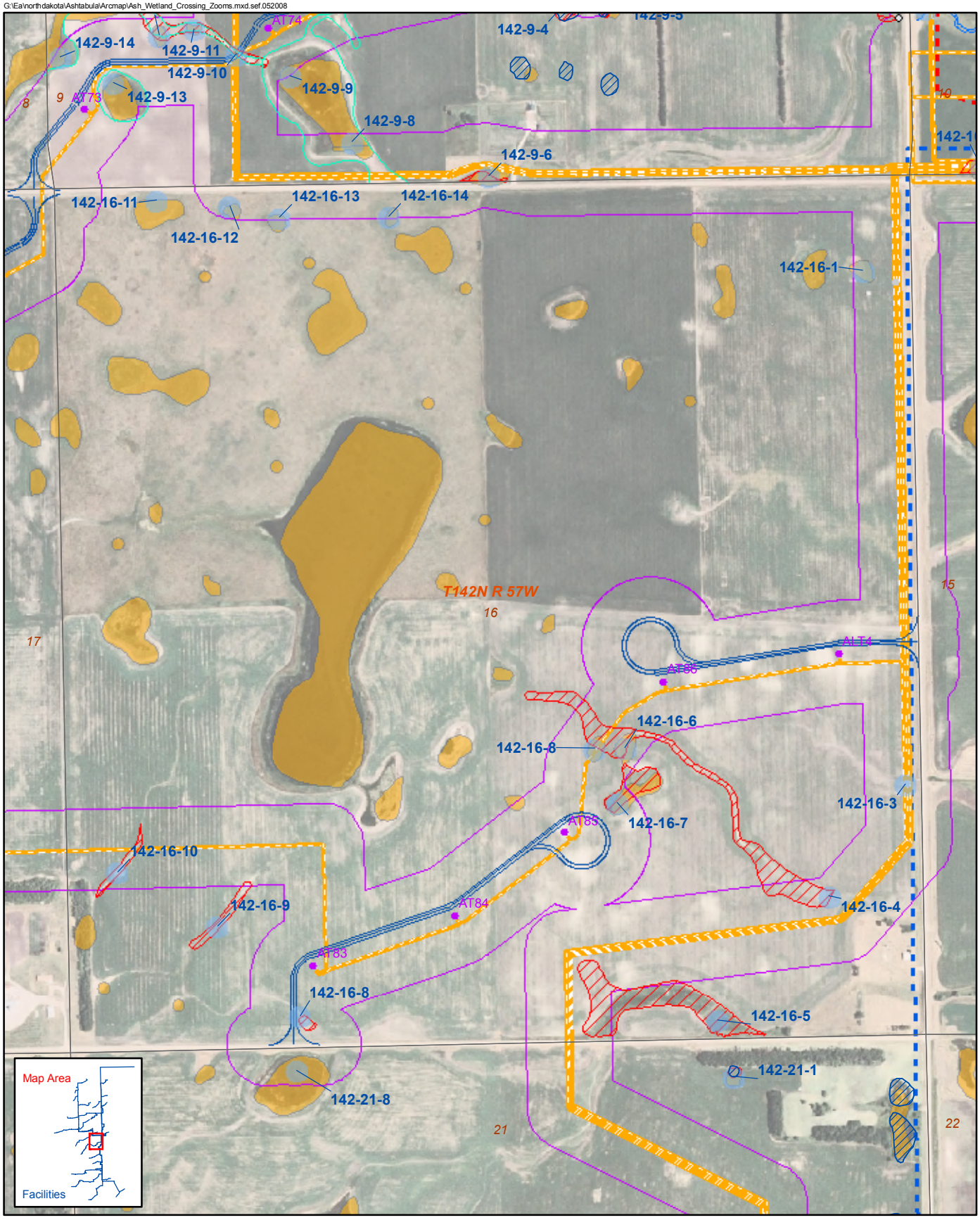

June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 16

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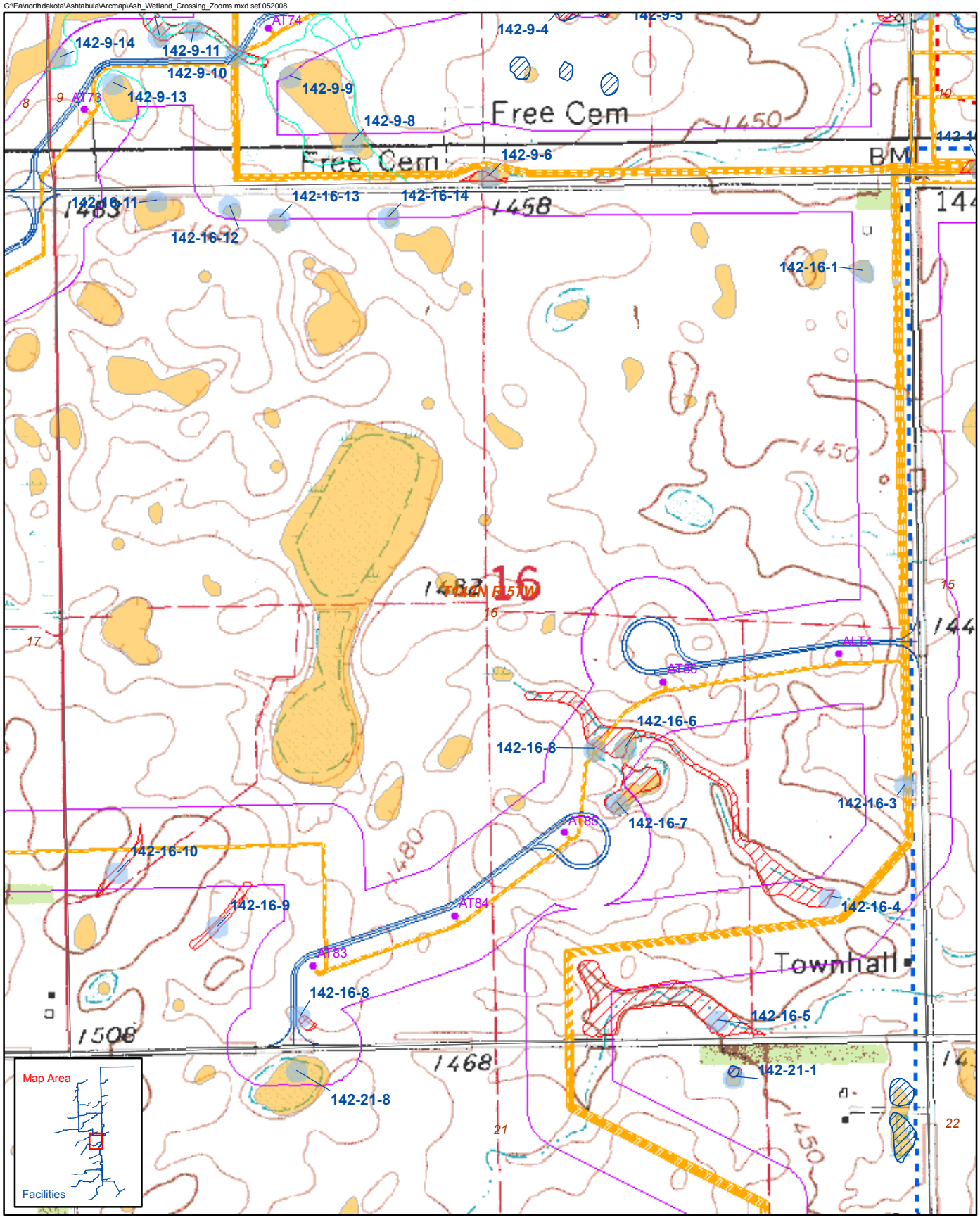

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 16

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-16-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-16-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Swail - Farmer farmed corn field and planted through the swail. Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1), View South (Page 2).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls. Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-16-1 View Facing East 04/26/08

142-16-1 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-16-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-16-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks : Vegetation dominated by non-hydrophytes.

Swail - Recently farmed soybean field.

A: Annual
I: Introduced
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1), View South (Page 2).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**VALLERS**	Drainage Class :	Poorly
(Series and Phase)	DRAINED,PE>44	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-16-3 View Facing East 04/26/08

142-16-3 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-4	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-16-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Recently farmed soybean field.
A: Annual
I: Introduced
F: Forb
H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-16-4 View Facing West 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-5	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-16-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phragmites australis	PNEG	FACW	Phalaris arundinacea	PNG	FACW+
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native
E: Emergent
F: Forb
I: Introduced

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)
Isolated

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SIC 2 msbk
6-16	Bg	5 Y 3/1			SIC 3 csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present.

142-16-5 View Facing West 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-16-6/8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-16-6/8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Some remnants of reed grass that have been plowed over. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos were taken looking Southeast and Northwest.

(Page 1) (Page 2)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5y 2.5/1			Sic 2msbk
6-16	Bg	2.5y 3/2			Sic 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site is drainage ditch that connects wetland areas that have been plowed and put into farming. This site encompasses two points; 142-16-6 and 142-16-8.

Site 142-16-6,8 looking SE.

Site 142-16-6,8 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-16-7	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-16-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass, cattail and curly dock.
P: Perennial
N: Native
I: Introduced
E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : -
- Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate the presence of wetland hydrology.
Photo: View looking East.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5y 2.5/1			Sic 2msbk
6-16	Bg	5y 2.5/1			Sic 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site142-16-7 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-8 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-SVEA**	Drainage Class :	well or moderately wel
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-16-8 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-16-9	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed with soy beans.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site has no indications of wetland hydrology.
Photo: View looking Northeast.

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5y 2.5/1			Sic
6-16	Bg	2.5y 3/1			Sic

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Site is non- wetland.

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-16-9 looking NE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-10 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northeast (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5y 3/1			Sic 2 msbk
6-16	Bg	5y 3/2			Sic 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-16-10 looking NE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-12 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Site has been impacted by livestock. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

Site 142-16-12 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-13 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland has been impacted by livestock.

Site 142-16-13 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-16-14 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-16-14
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Grazing livestock has removed the presence of most hydrophytic vegetation. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**VALLERS, PE<44**	Drainage Class :	Poorly
(Series and Phase)	MAP19-23	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

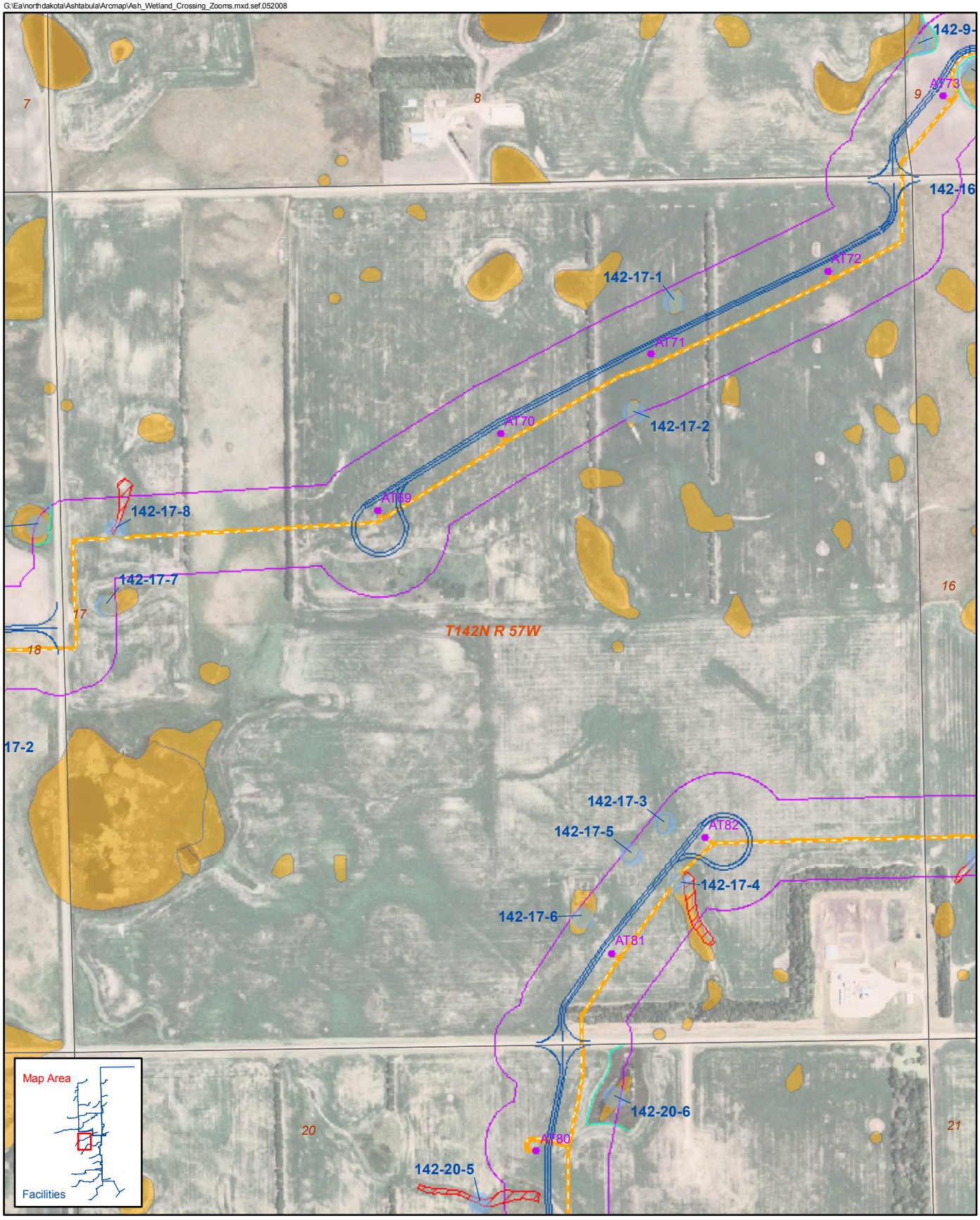
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-16-14 looking south.

Township 142
Range 57
Section 17

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

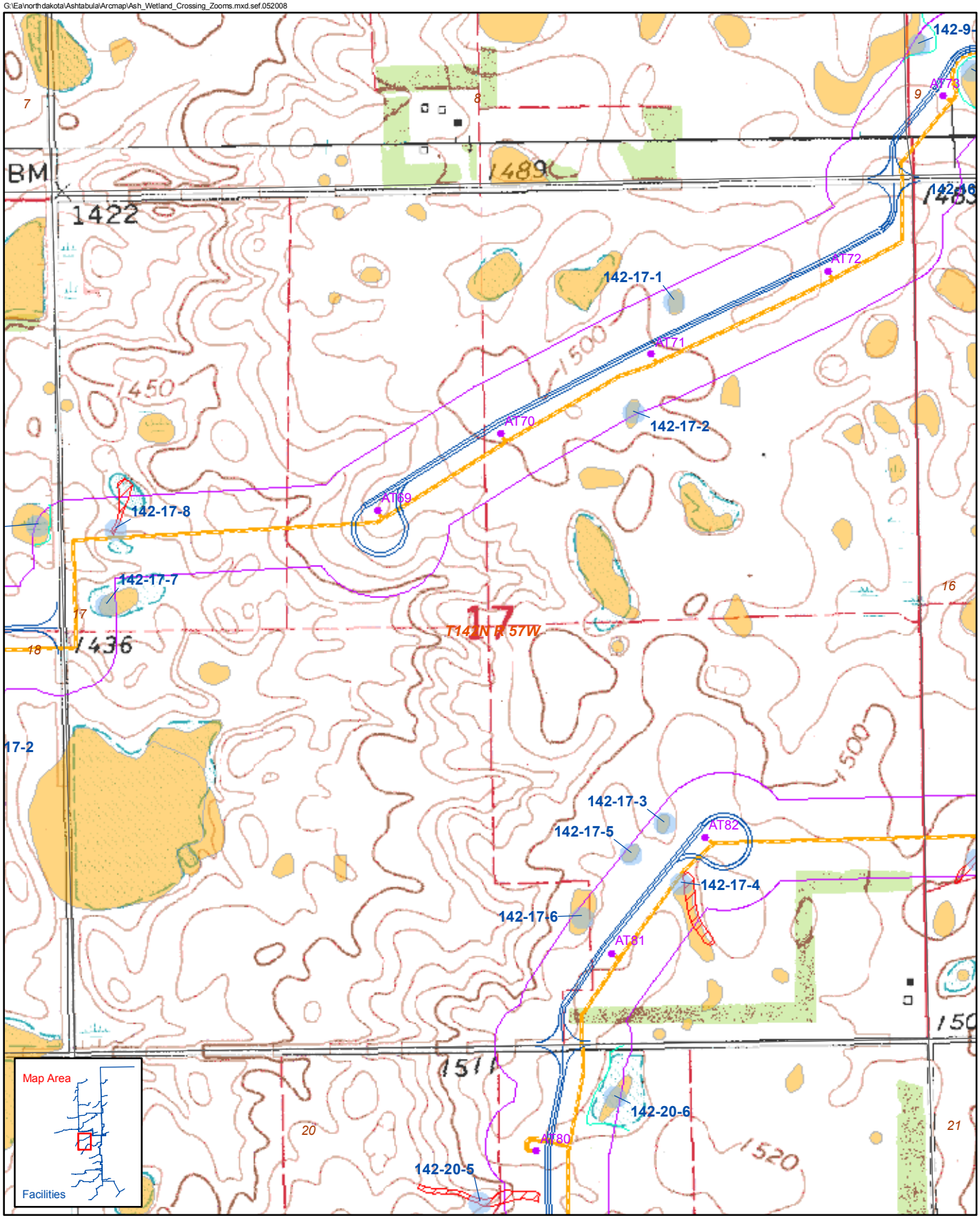
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 17

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 17

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-1 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	well or moderately wel
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-1 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtbula LLC 142-17-2 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site has been plowed and planted with corn.

Site 142-17-2 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-2A MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-2A
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-2A looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-3 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-17-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-3 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-17-4	Date :	06/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID : 142-17-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☑	Plot ID: A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

There are no indications of hydrophytic vegetation the wetland has been farmed in soy beans.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : --
- Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site has indications of wetland hydrology.
Photos: Photos were taken looking Northwest and Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	Barnes-Buse	Drainage Class :	
(Series and Phase)		Field Observation	
Taxonomy (subgroup)		Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- Histosols
- Histic Epipedon
- Sulfidic Odor
- Aquic Moisture Regime
- Reducing Conditions
- Gleyed or Low-Chroma Colors
- Concretions
- High Organic Content in Surface Layer Sandy Soils
- Organic Streaking in Sandy Soils
- Listed on local Hydric Soils List
- Listed on National Hydric Soils List
- Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-17-4 View Northeast

142-17-4 View Northwest

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-5 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-5 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-6 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-6 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-17-7 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-17-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-7 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-17-8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-17-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn that has been plowed under. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☑ Other (Explain In Remarks)

Remarks :
Site shows no indications of wetland hydrology.
Photo: View looking Northeast

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10yr 2/			SicL 1msbk
7-12	Bg1	2.5y 2.5/1			Sic 3csbk
12-16	Bg2	2.5y 5/3			Sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☑ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Site is non- wetland.

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-17-8 looking NE.

Township 142
Range 57
Section 18

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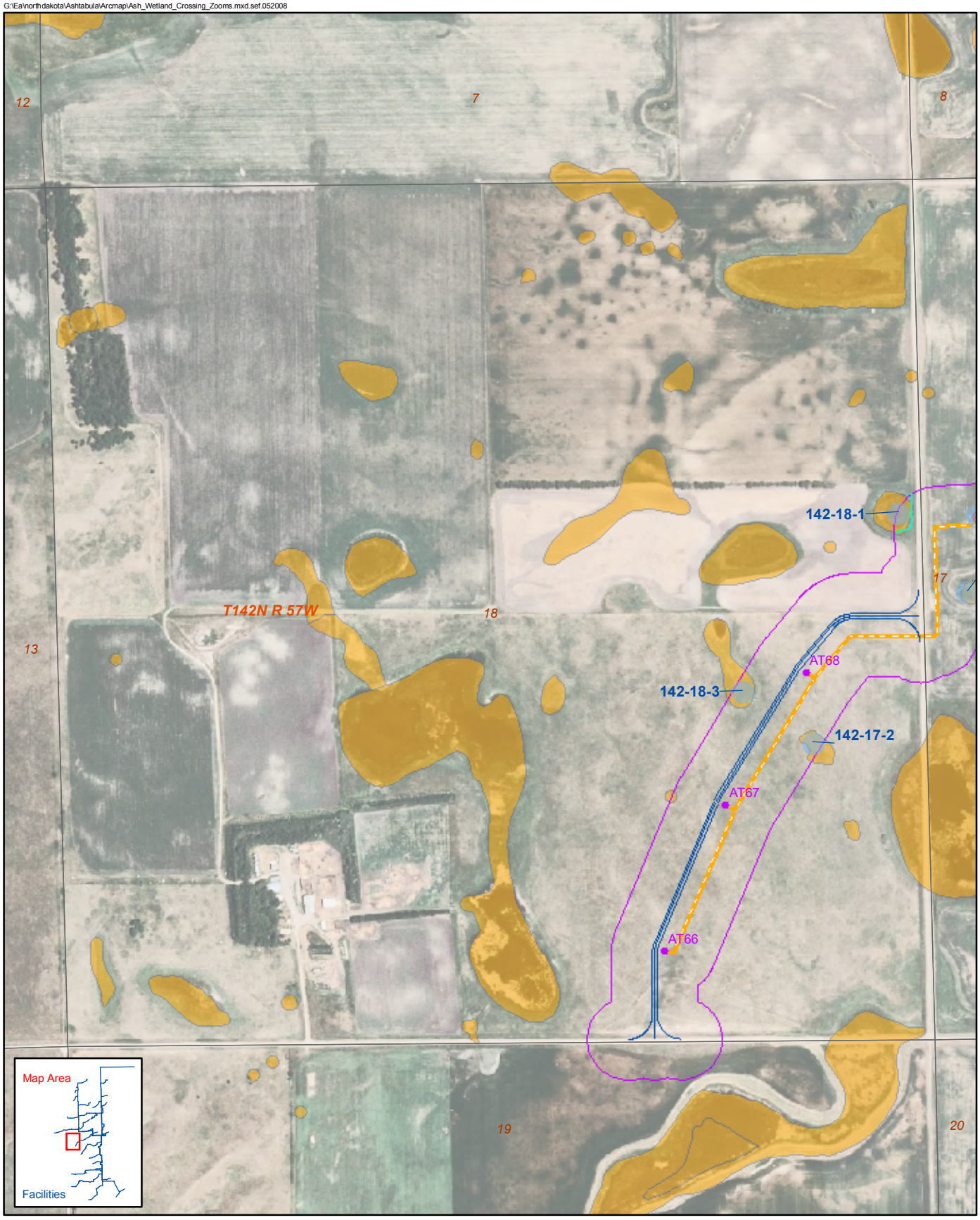

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 18

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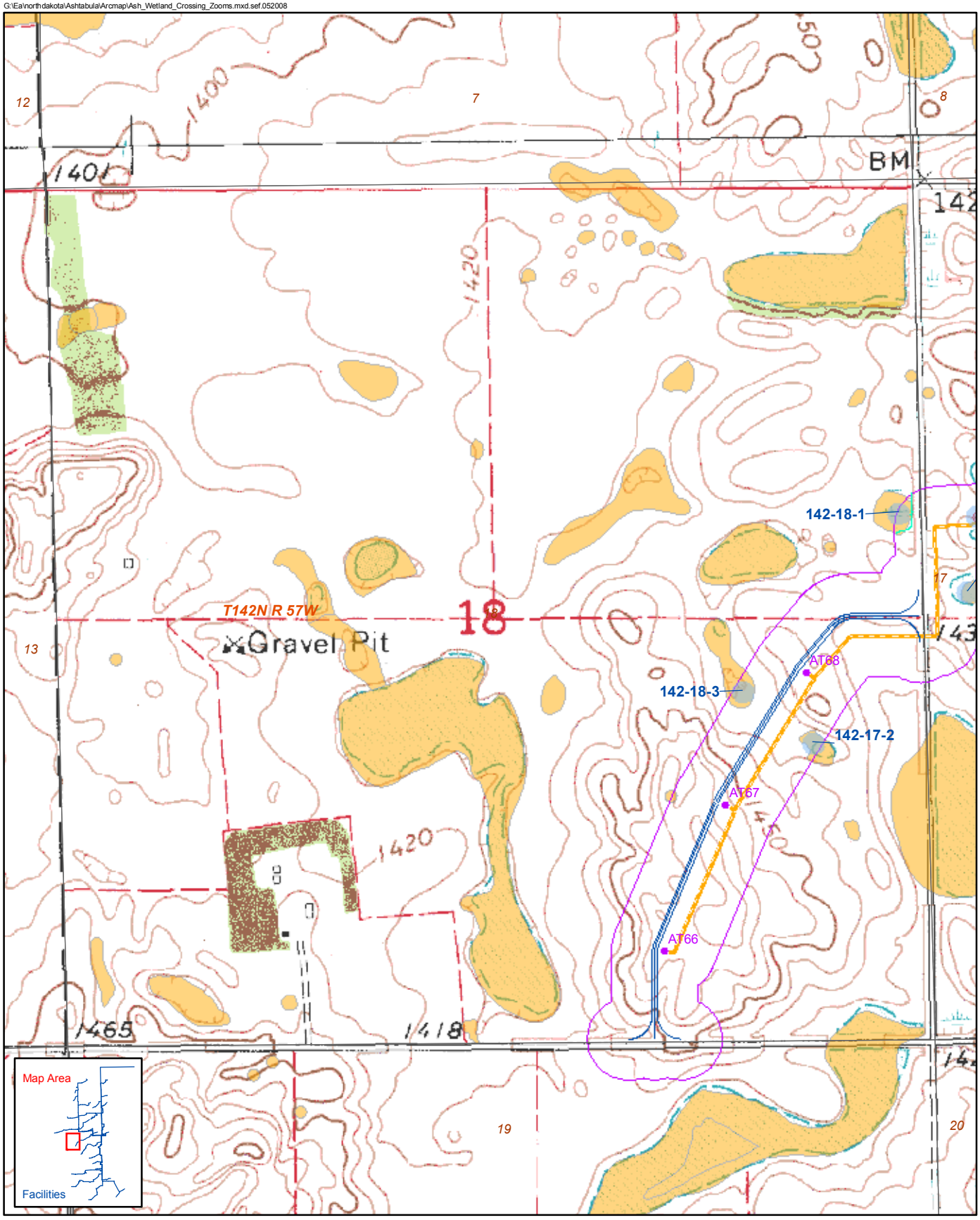

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 18

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-18-1 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-18-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Salix pseudomonticola	NS	FACW
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
S: Shrub

E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-18-1 looking north.

Site 142-18-2 looking SE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-18-3 MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-18-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial F: Forb
N: Native
G: Grass
E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-18-3 looking NW.

Township 142
Range 57
Section 20

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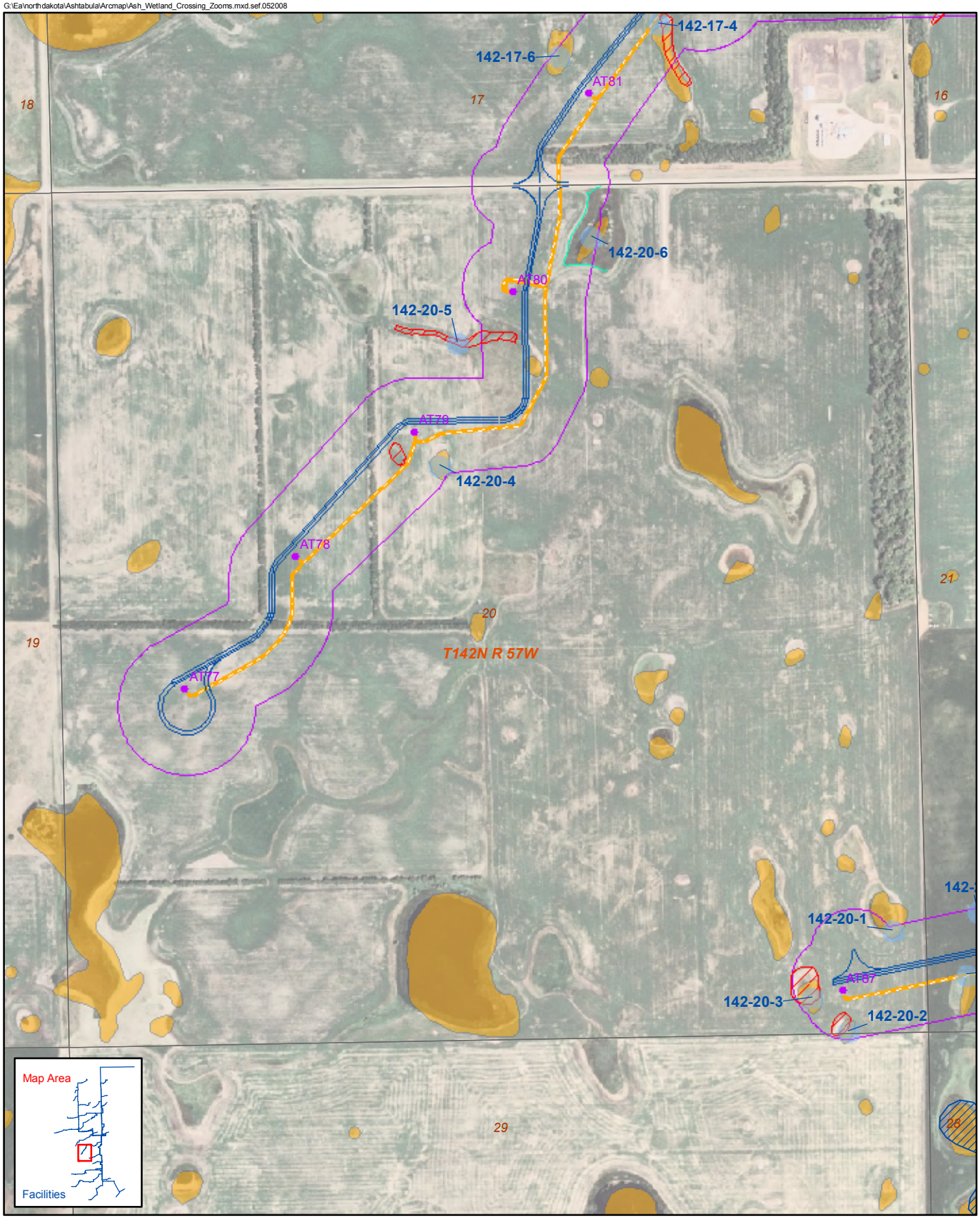

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 20

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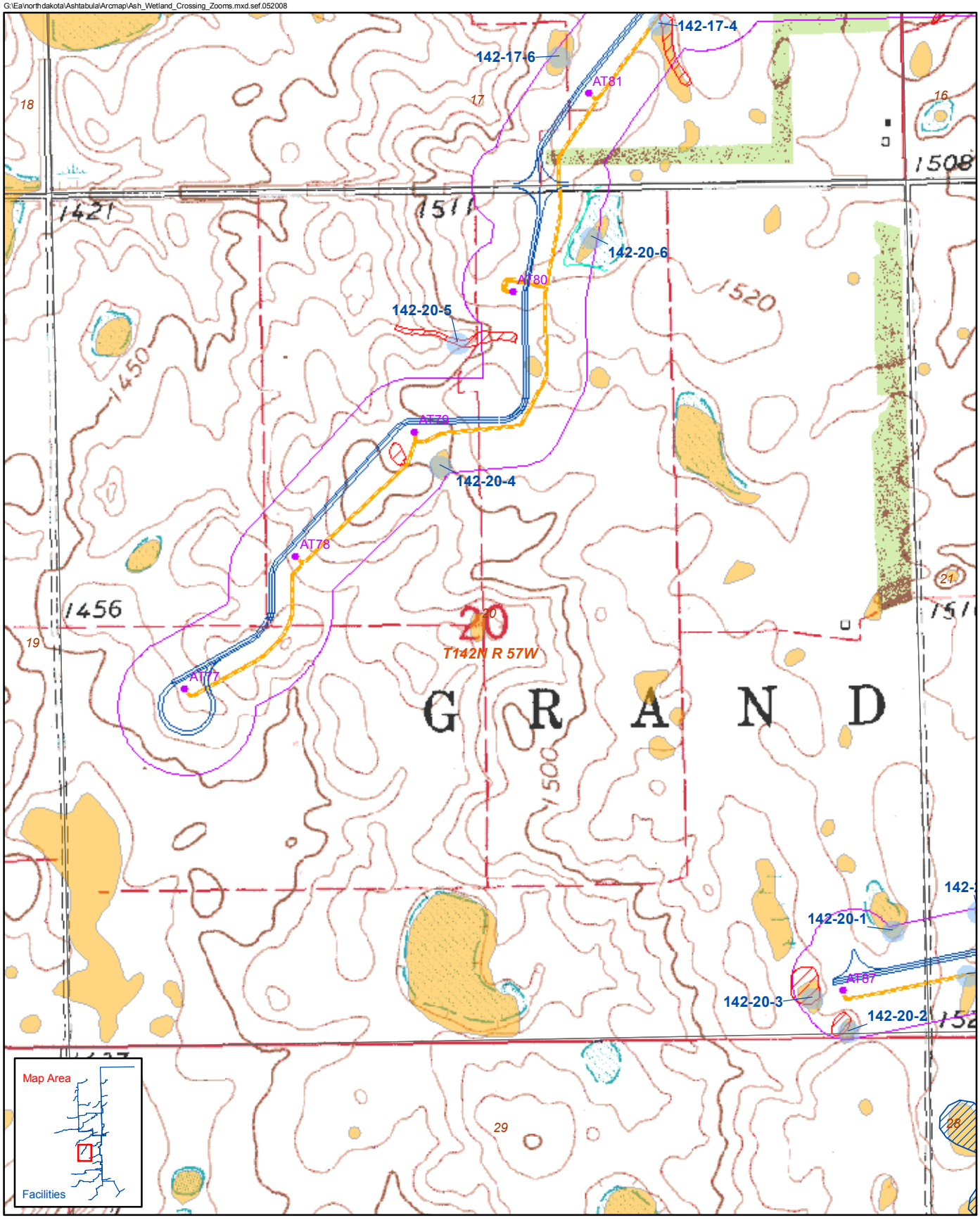

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 20

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass
Area Recently Farmed

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Argiaquic Argialbolls . Soil profiles were not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-20-1 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

The wetland is farmed through.

A: Annual
G: Grass
I: Introduced

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	5Y2.5/1			SiCL 1msbk
6-16	Bq	5Y3/1			SiCL 2cmsb

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-20-2 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-3	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

The wetland is farmed through.

A: Annual
G: Grass
I: Introduced

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	5Y2.5/1			SiCL 1msbk
7-16	Bq	5Y3/1			SiL 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-20-3 View Facing West 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-4	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Scirpus fluviatilis	PNEGL	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
GL: Grass Like

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1), View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	10 YR 2/1			SICL 1 msbk
6-16	E	2.5 YR 3/1			SCL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-20-4 View Facing North 04/28/08

142-20-4 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-4A MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	142-20-4A
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: INtroduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-20-4A looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-20-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Site is vegetated with reed grass.
P: Perennial
N: Native
G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : -
- Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site has no indications of wetland hydrology.
Photo: View looking west.

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	10yr			SicL 1msbk
6-16	E	2.5y 3/1			SicL 3cpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-20-5 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-20-6 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-20-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-20-6 looking south.

Township 142
Range 57
Section 21

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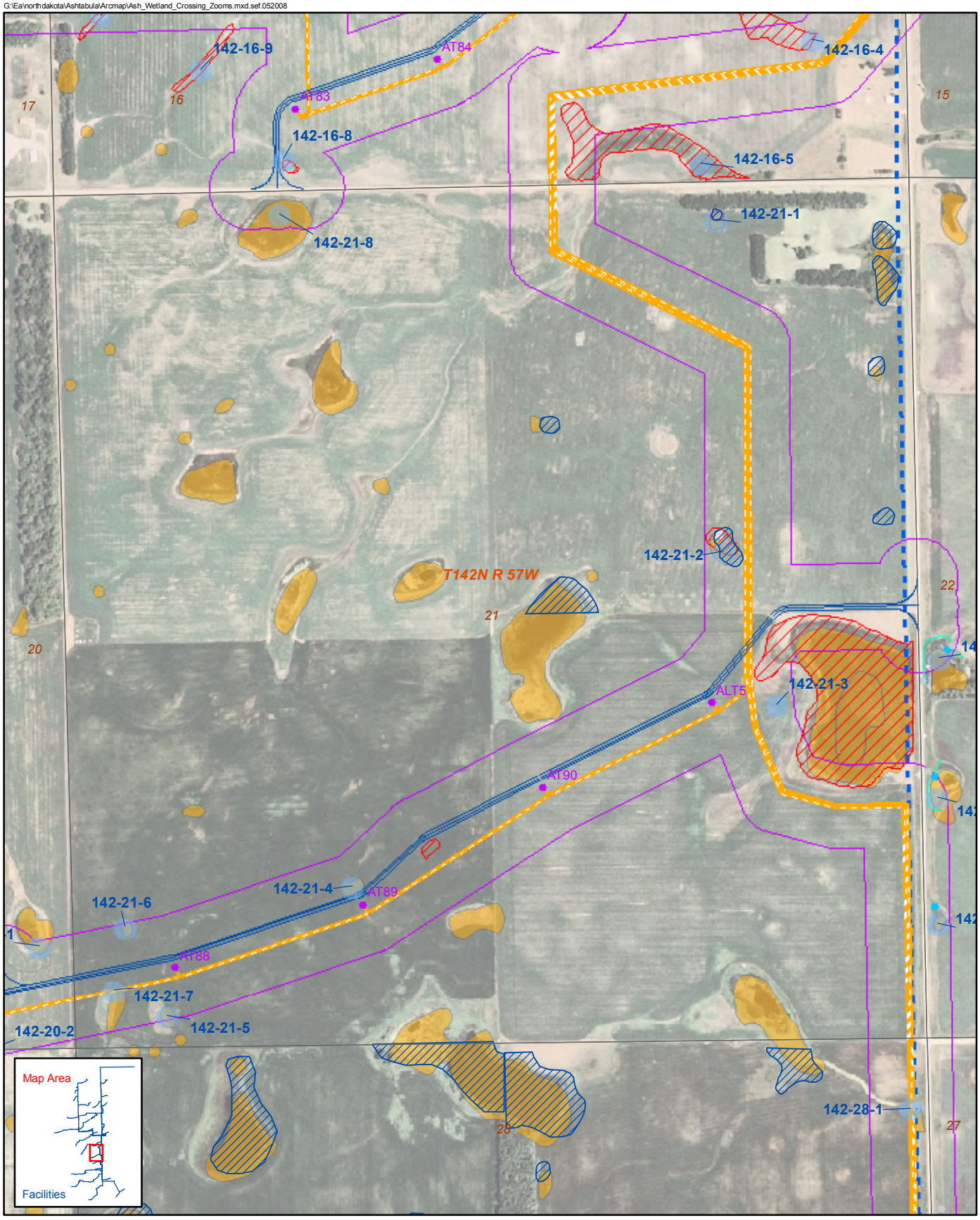


June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

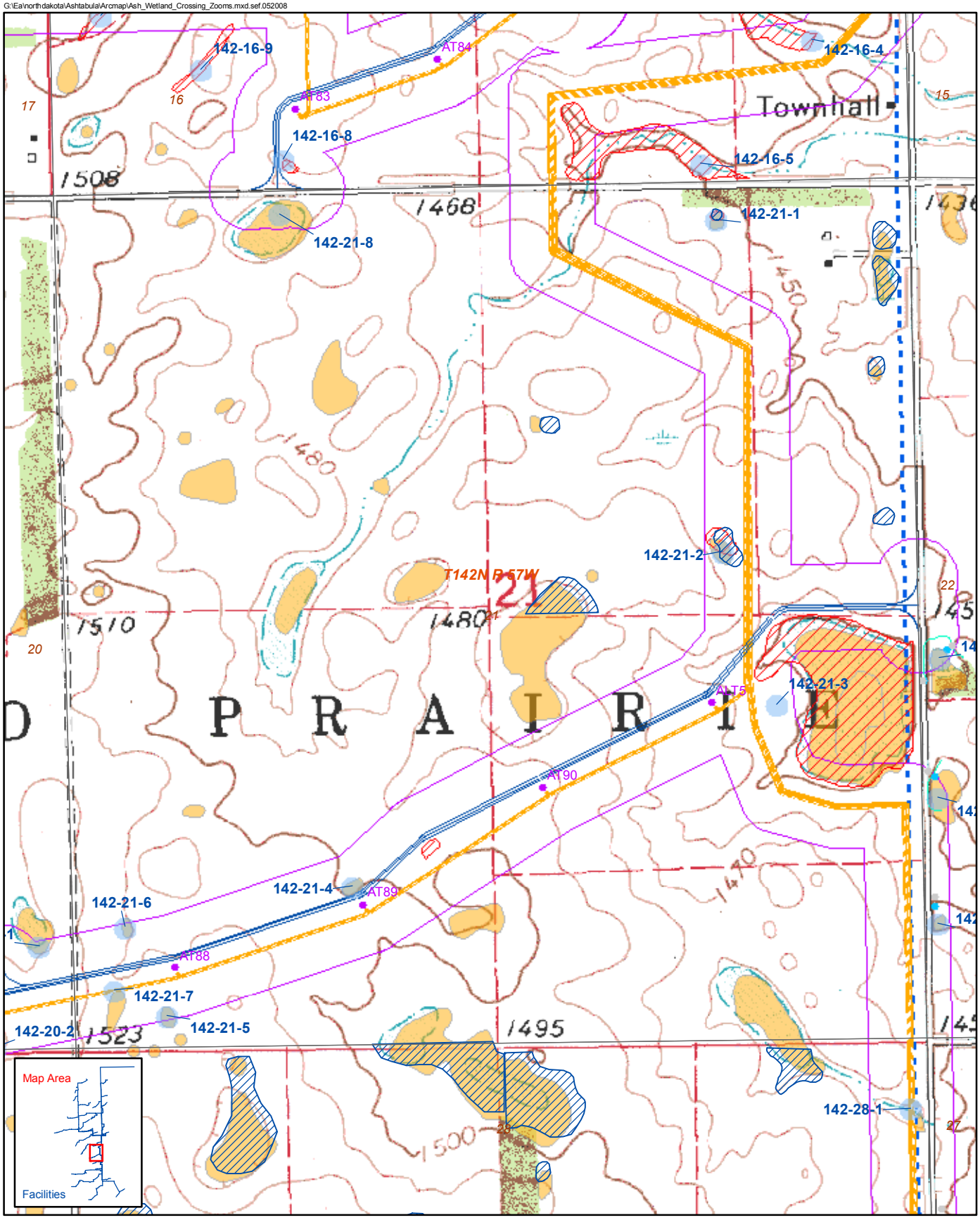
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 21

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 21

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass
Area Recently Farmed

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Argiaquic Argialbolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-21-1 View Facing West 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI	Typha latifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

A: Annual
E: Emergent
I: Introduced
F: Forb
G: Grass
P: Perennial
N: Native

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10 YR 2/1			SICL 1 msbk
7-12	E1	2.5 Y 2.5/1			SICL 2 cpl
12-16	E2	2.5 Y 4/2			SICL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soils may also contain Typic Calciudolls. Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-21-2 View Facing West 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-4	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
A: Annual
I: Introduced
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	5 Y 2.5/1			SiCL 1 msbk
7-11	Bg	5 Y 3/1			SIC 3 msbk
11-16	Bg2	5 Y 3/2			SIC 1 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-21-4 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-5	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

The wetland is farmed through.

A: Annual
G: Grass
I: Introduced

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Somewhat poorly to pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-21-5 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-6	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI	Typha latifolia	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

A: Annual
E: Emergent
I: Introduced
F: Forb
G: Grass
P: Perennial
N: Native

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southwest (Page 1)
Area Recently Farmed

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Argiaquic Argialbolls . Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-21-6 View Facing Southwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-21-8 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-21-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1), View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

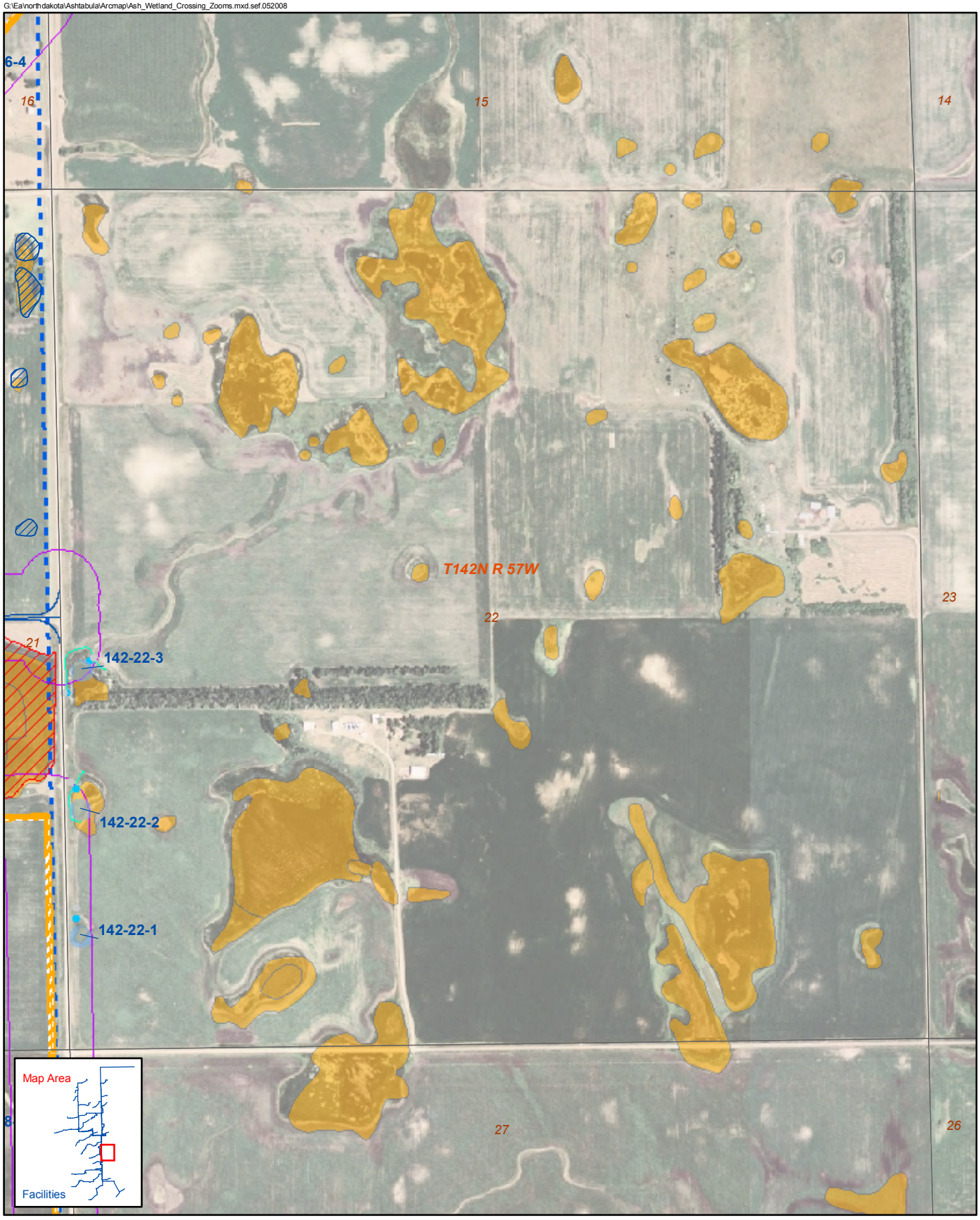
Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 142-21-8 looking east.

Site 142-21-8 looking NW.

Township 142
Range 57
Section 22

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

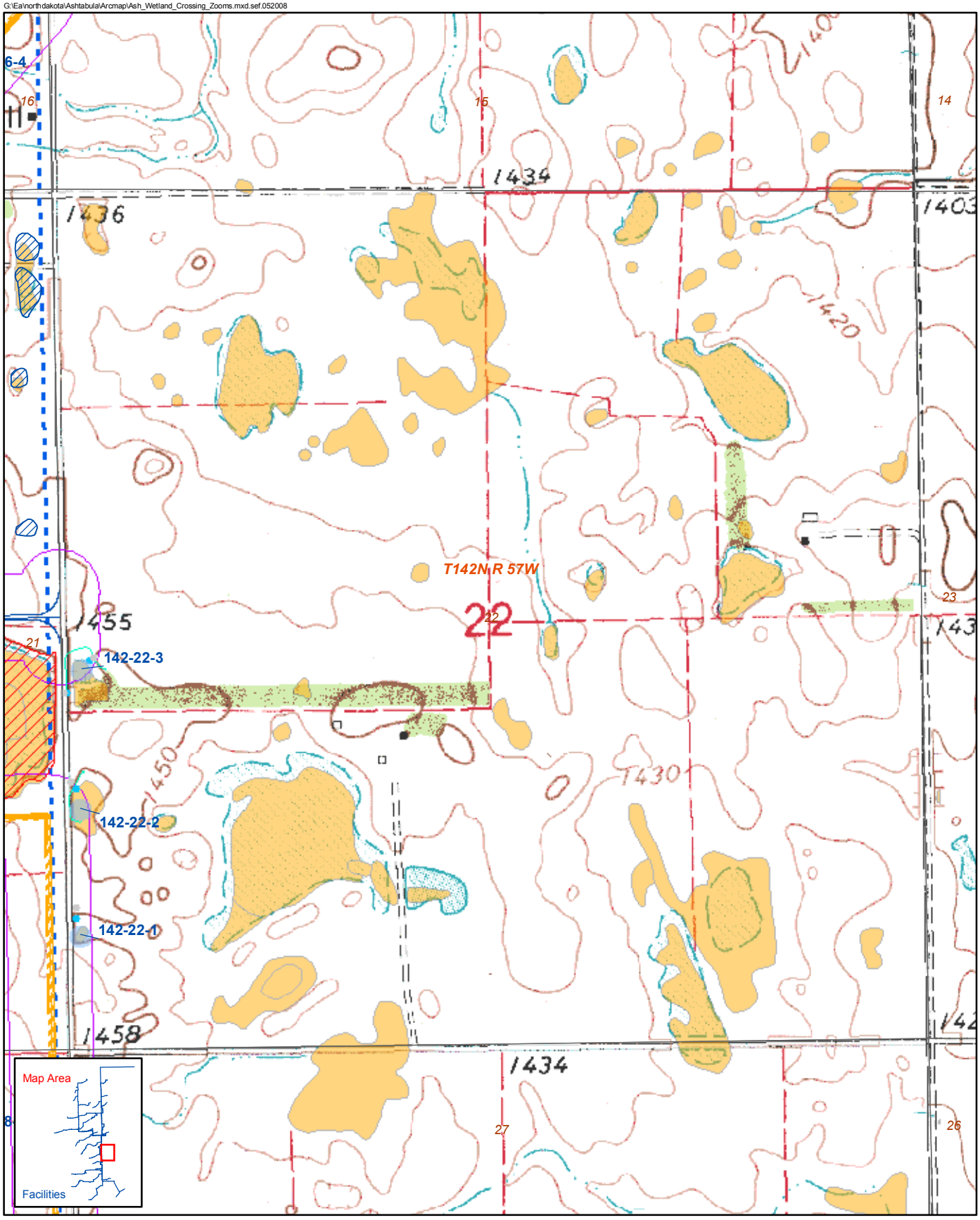
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 22

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 22

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Salix sp.	S	OBL
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial S: Shrub
N: Native G: Grass
E: Emergent I: Introduced
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photo: View South (Page 1), View North (Page 1), (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-22-1 T1-A 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

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Project/Site :	Ashtabula LLC 142-22-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photo: View North (Page 1), View South (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-22-1 T1-B 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-22-2	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native G: Grass
E: Emergent S. Shrub

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : Photos: (Page 1), View Northwest (Page 1), View Southeast (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls. Soil profile was not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-2	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Bromus Sp.	PG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

The vegetation has recently been mowed. Vegetation dominated by non-hydrophytes.

P: Perennial
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : Vegetation has been mowed.

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.
The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would support classification of this area as a Water of the United States.

142-22-2 View Facing Southeast 04/26/08

142-22-2 View Facing Northwest 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Salix sp.	S	OBL	Xanthium strumarium	ANF	FAC

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

G: Grass
S: Shrub
A: Annual

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 6

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1), View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-22-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Salix sp.	S	OBL	Xanthium strumarium	ANF	FAC

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial G: Grass
N: Native S: Shrub
E: Emergent A: Annual
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 6

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1), View West (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-22-3 T1-A 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Alopecurus aequalis	PNG	OBL	Bromus Sp.	PG	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by non-hydrophytes.

This upland point is on roadside burm.

P: Perennial
N: Native
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : No Photos

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-22-3 T1-B 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-3 B	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-3 B
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T2
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 6

Depth to Saturated Soil (inches) : n/a

Depth to Free water in Pit (inches) : n/a

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View West (Page 1), View East (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Positive indicators of wetland vegetation, hydrology, and characteristics of hydric soils were determined to be present. Wetland areas were restricted to a narrow band within the well defined drainage.

142-22-3 T2-A 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-22-3 B	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-22-3 B
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T2
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

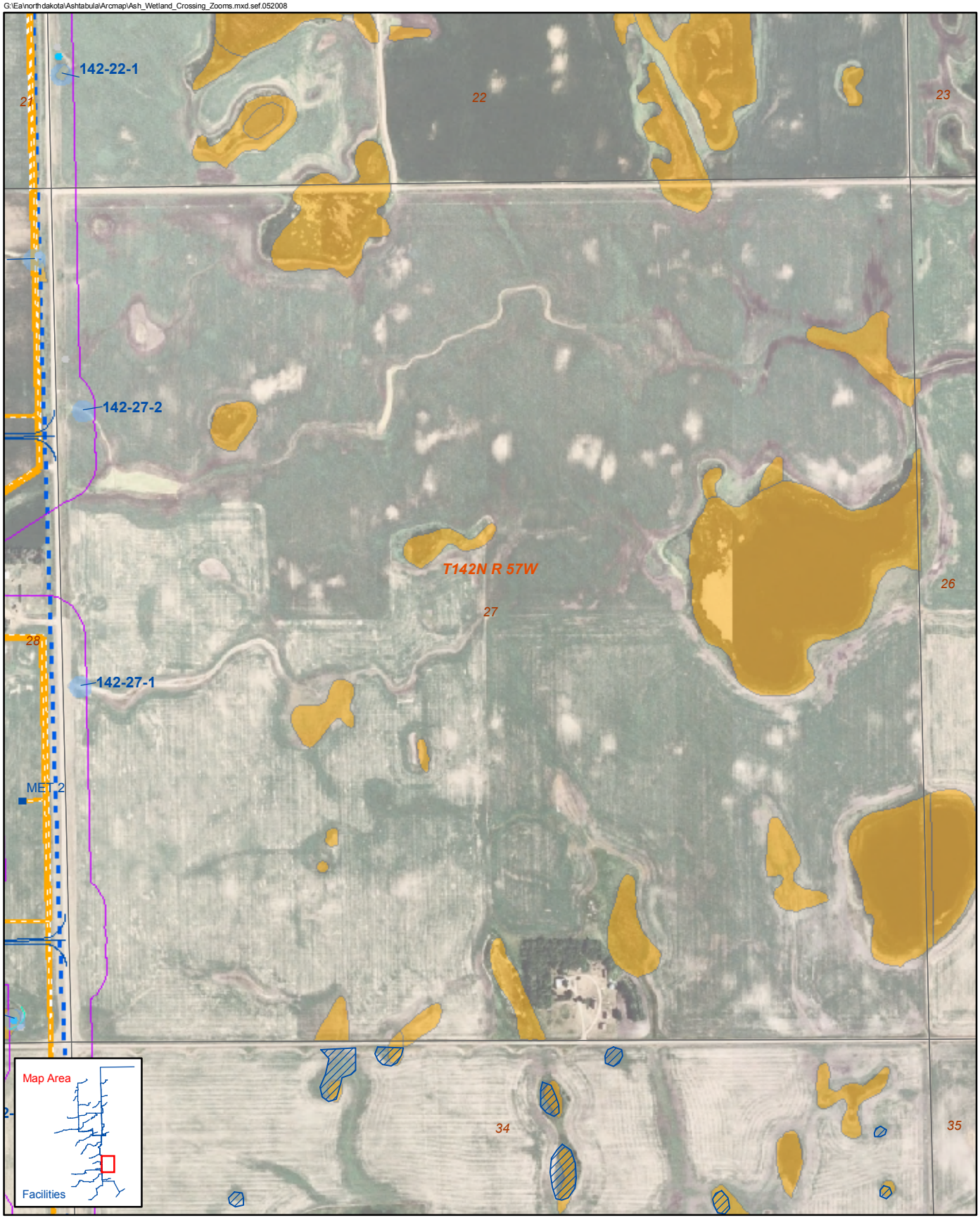
Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-22-3 T2-B 04/26/08

142-22-8 View Facing North 04/26/08

Township 142
Range 57
Section 27

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

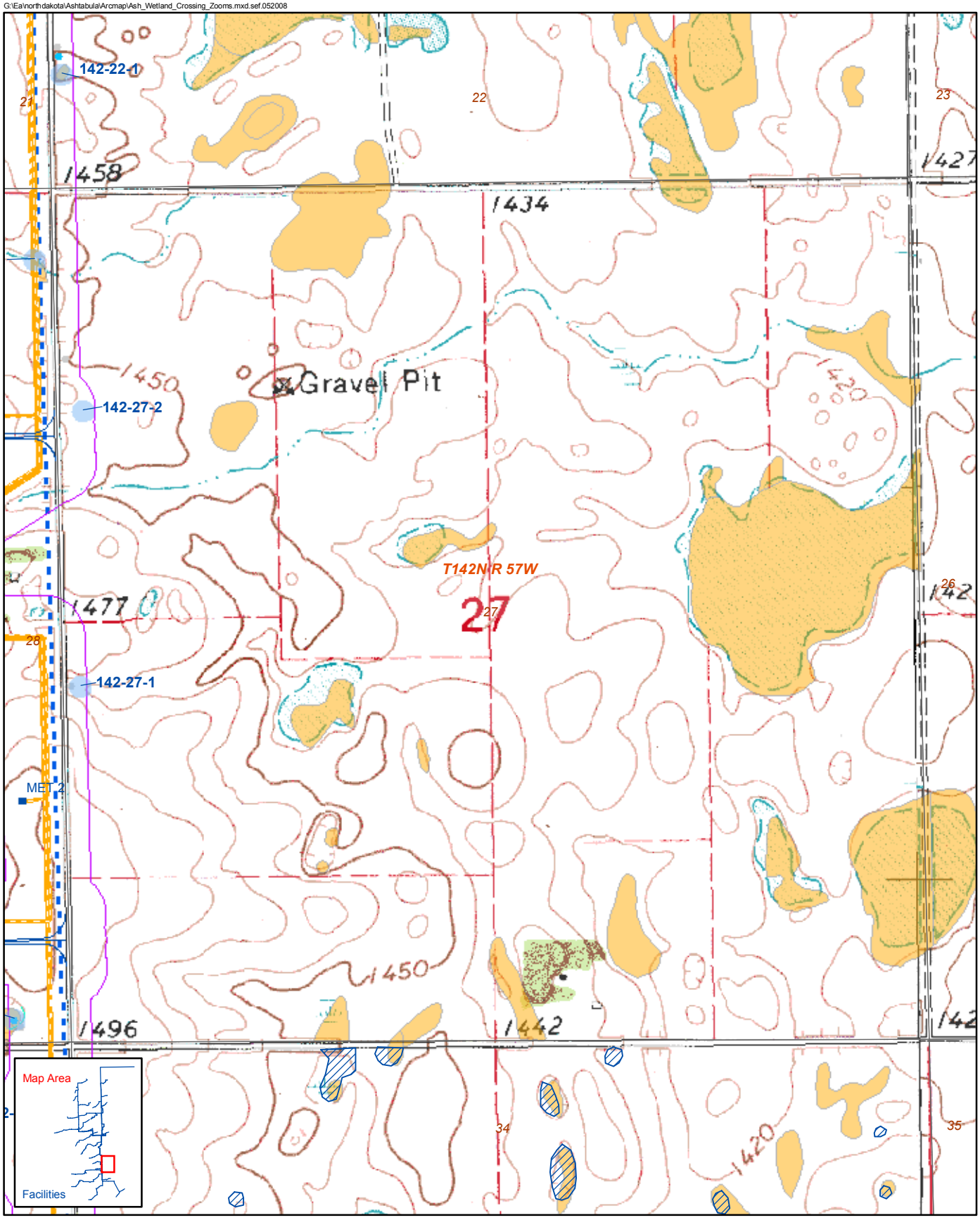
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 27

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

TETRA TECH, INC.

- Section
- NWI Wetland Area
- Wetland Easement 3/7/2008
- Crossing Location
- Turbine Location
- Collector Line
- Access Road
- Permanent T-Line
- Temporary T-Line
- Facility Buffer
- Culvert
- Non_wet_
- Wetland_
- Line_gen
- RPW2
- Wetland2
- Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 27

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-27-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-27-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field. Farmer also plants through swail. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : Photos: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	Moderatly well to well d
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/PACHIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-27-1 View Facing North 04/26/08

142-27-1 View Facing South 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

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Project/Site :	Ashtabula LLC 142-27-2	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-27-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field. Farmer also farms through swail. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks:

Photos: (Page 1), View South (Page 1), View North (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-27-2 View Facing North 04/26/08

142-27-2 View Facing South 04/26/08

Township 142
Range 57
Section 28

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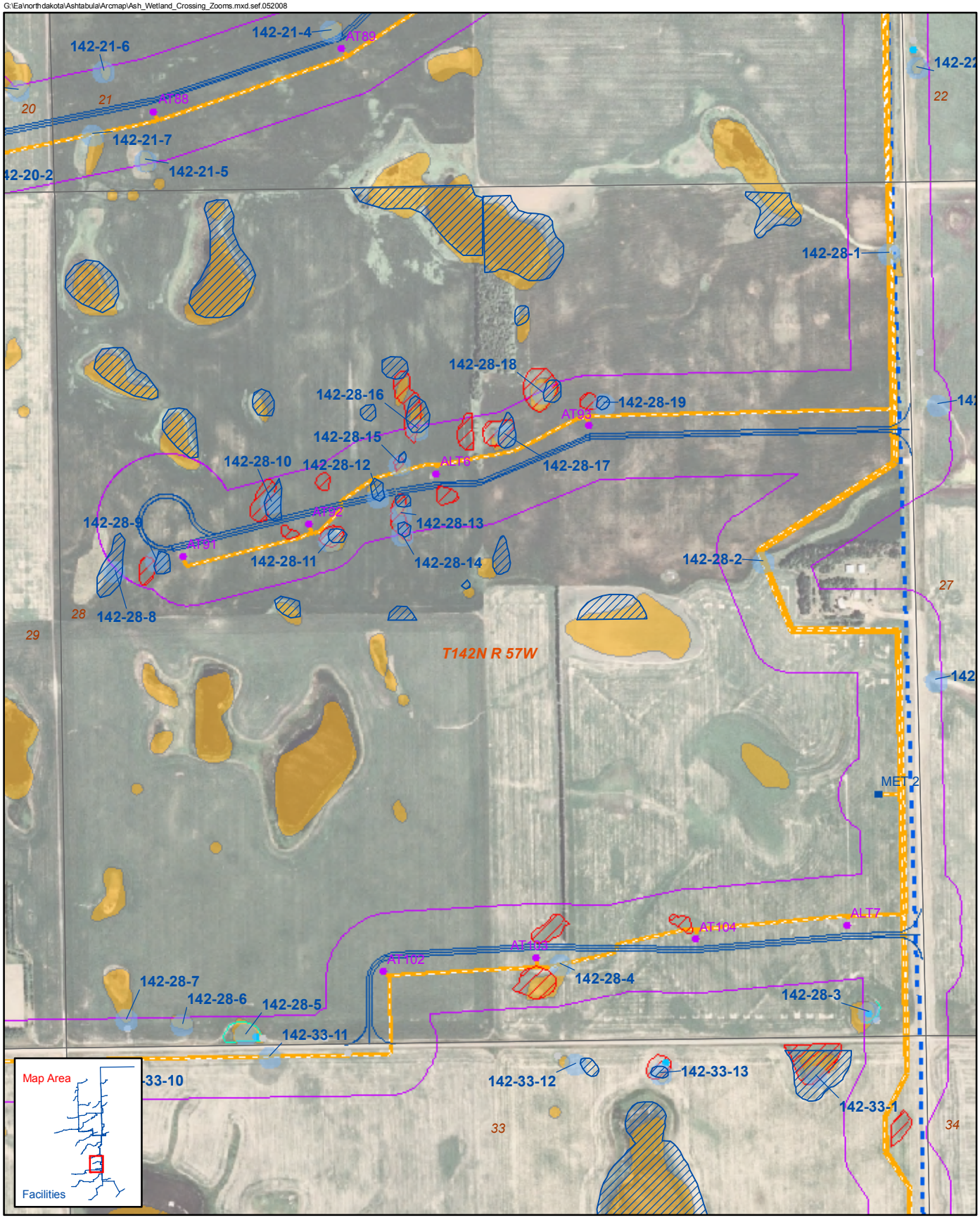

June 26 2008

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1:10,000

TETRA TECH, INC.

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 28

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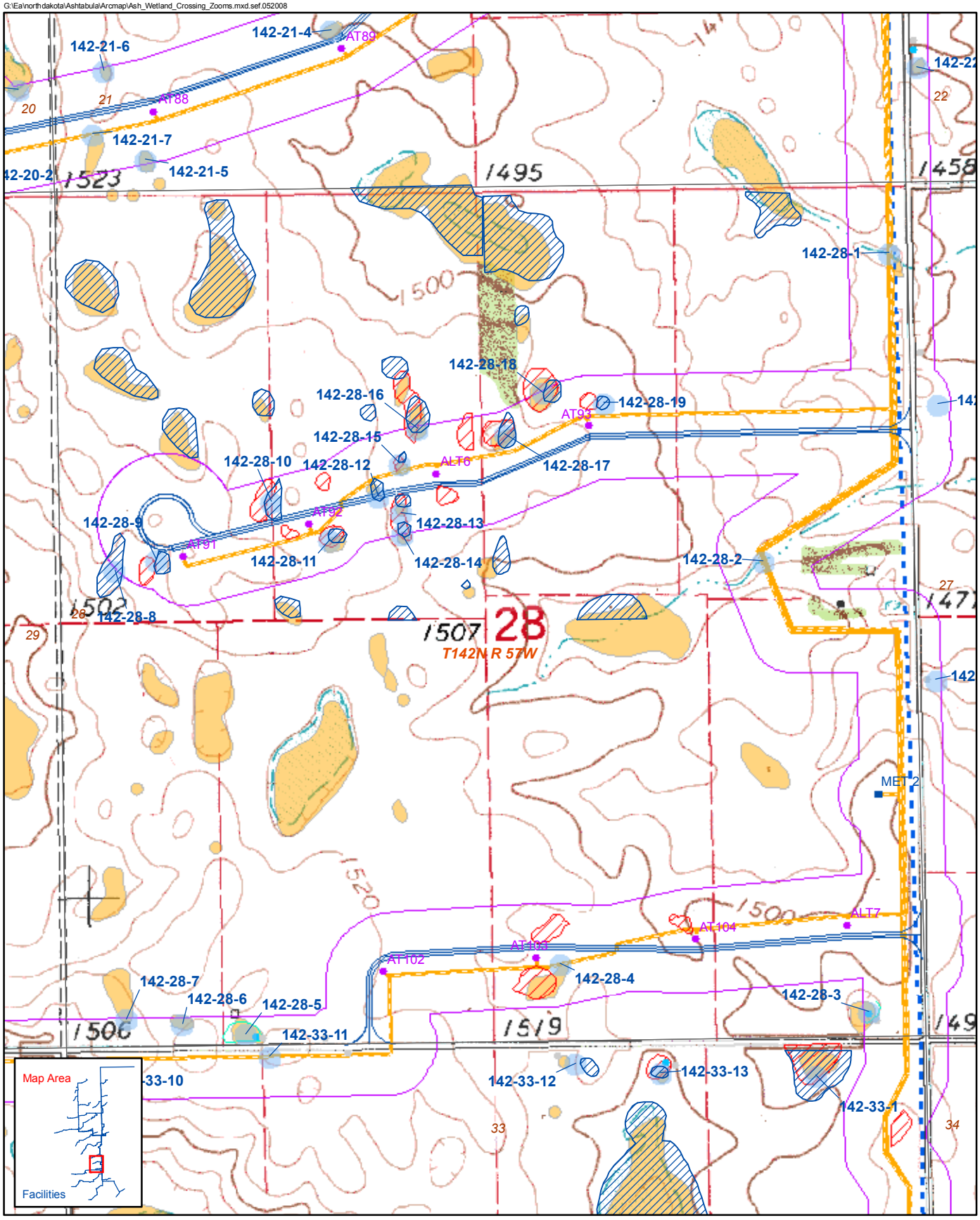

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 28

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-28-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field. Farmer also farms through swail. Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks: Photo View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-1 View Facing North 04/26/08

142-28-1 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-2	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

E: Emergent
F: Forb
G: Grass
N: Native
P: Perennial

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 8
- Depth to Saturated Soil (inches) : NA
- Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators
Primary Indicators :
- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiL 1msbk
7-12	E1	2.5Y3/1			Sil 3mpl
12-16	E2	2.5Y3/3			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-2 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-28-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha latifolia	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
G: Grass
E: Emergent
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photos: (Page 1), View Southeast (Page 1), View Northwest (Page 2).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil also contains Argiaquic Argialbolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-3 T1-A 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-28-3	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Recently farmed wheat field.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-3 T1-B 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-4	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :
Vegetation dominated by non-hydrophytes.
This is a plowed soybean field.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC 1msbk
7-16	E	2.5Y3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-4 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-28-5	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field, and the swail was farmed through. Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks:
Photo: View Southeast (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-5 View Facing East 04/26/08

142-28-5 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-28-6	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennail
N: Native
G: Grass
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-6 View Facing Southwest 04/26/08

142-28-6 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-28-7	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks : Vegetation dominated by non-hydrophytes.

Recently farmed corn field.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks : Photos: (Page 1), View West (Page 1), View East (Page 2).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls. Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-7 View Facing East 04/26/08

142-28-7 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-8	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :
Vegetation dominated by non-hydrophytes.
This is a plowed soybean field.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC 1msbk
7-16	Bq	5Y3/1			SiC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-8 View Facing Northeast 04/28/08

142-28-8B View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-9	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

This is a plowed soybean field.

A: Annual
F: Forb
H: Partly Woody
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiL 1msbk
7-16	E	2.5Y3/1			SiL 1mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-9 View Facing Southwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-10	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

This is a plowed soybean field.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiL 1msbk
7-16	E	2.5Y3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-10 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-11	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

A: Annual
E: Emergent
F: Forb
G: Grass
H: Partly Woody
I: Introduced
N: Native
P: Perennial

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y 2.5/ 1			SiCL 1msbk
7-16	Bg	2.5Y 3/1			SiCL 3csbk

Hydric Soil Indicators

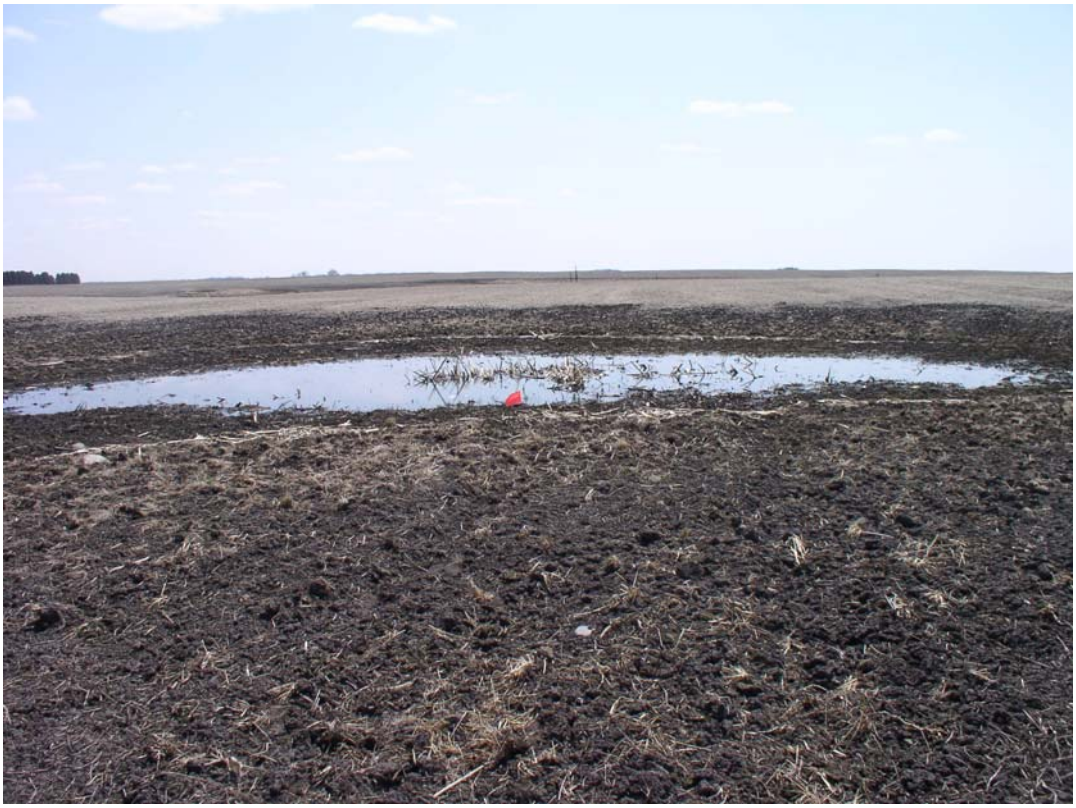
- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



142-28-11 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-12	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

This is a plowed soybean field.

A: Annual
F: Forb
H: Partly Woody
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiL 1msbk
7-13	E1	2.5Y3/1			SiCL 2mpl
13-16	E2	2.5Y3/3			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-12 View South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-13	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :
Vegetation dominated by non-hydrophytes.
This is a plowed soybean field.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-11	E1	2.5Y3/1			SiCL 3cpl
11-16	E2	2.5Y3/3			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-13 View Facing South 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-14	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-14
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :
Vegetation dominated by non-hydrophytes.
This is a plowed soybean field.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations
- Depth of Surface Water (inches) : 0
- Depth to Saturated Soil (inches) : >12
- Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators
Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-14 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-28-14b	Date :	06/25/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID : 142-28-14B
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID : T1
Is the Area a Potential Problem Area ?	☑	Plot ID: A
(If needed, explain on reverse.)		

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Wetland has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G:Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
This site is a seasonally flooded Fish and Wildlife easement wetland.
Photos: Looking North

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name :	Barnes-Buse	Drainage Class :	
(Series and Phase)		Field Observation	
Taxonomy (subgroup)		Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

Histosols	Concretions
Histic Epipedon	High Organic Content in Surface Layer Sandy Soils
Sulfidic Odor	Organic Streaking in Sandy Soils
Aquic Moisture Regime	Listed on local Hydric Soils List
Reducing Conditions	Listed on National Hydric Soils List
Gleyed or Low-Chroma Colors	Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: This site is a Fish and Wildlife easement wetland. Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-14B View North

142-28-14B View North

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-15	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-15
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Farmer has farmed through the wetland.

Vegetation dominated by non-hydrophytes.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-15 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-16	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-16
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This is a plowed soybean field.

Vegetation dominated by non-hydrophytes.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-11	E1	2.5Y3/1			SiCL 3mpl
11-16	E2	2.5Y3/3			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-16 View North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-17	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-17
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Polygonum pensylvanicur	ANEF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

A: Annual
E: Emergent
F: Forb
G: Grass
N: Native
P: Perennial

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5Y2.5/1			SiCL 2msbk
7-16	Bq	5Y3/1			SiC 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-17 View Facing East 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-18	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-18
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Farmer has plowed around and through the edge of the wetland. Vegetation dominated by hydrophytes.

E: Emergent I: Introduced
F: Forb N: Native
G: Grass P: Perennial

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 1

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-5	A	5Y2.5Y2/1			SiCL 2msbk
5-16	Bq	5Y3/1			SiCL 3csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-18 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-19	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-19
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This is a plowed soybean field. Vegetation dominated by non-hydrophytes.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2/1			SiL 1msbk
7-16	E	2.5Y3/1			SiL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-19 View Facing Northwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-20	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-20
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This is a plowed soybean field. Vegetation dominated by hydrophytes.

A: Annual G: Grass N: Native
E: Emergent H: Partly Woody P: Perennial
F: Forb I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 2msbk
7-12	E1	2.5Y3/1			SiCL 3mpl
12-16	E2	2.5Y			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-20 View Facing North 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-21	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-21
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This is a plowed soybean field. Vegetation dominated by non-hydrophytes.

A: Annual H: Partly Woody P: Perennial
E: Emergent I: Introduced
F: Forb N: Native

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiCL 3cpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-28-21 View Facing Southeast 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-28-22	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-28-22
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

This is a plowed wheat field.

Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiC 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

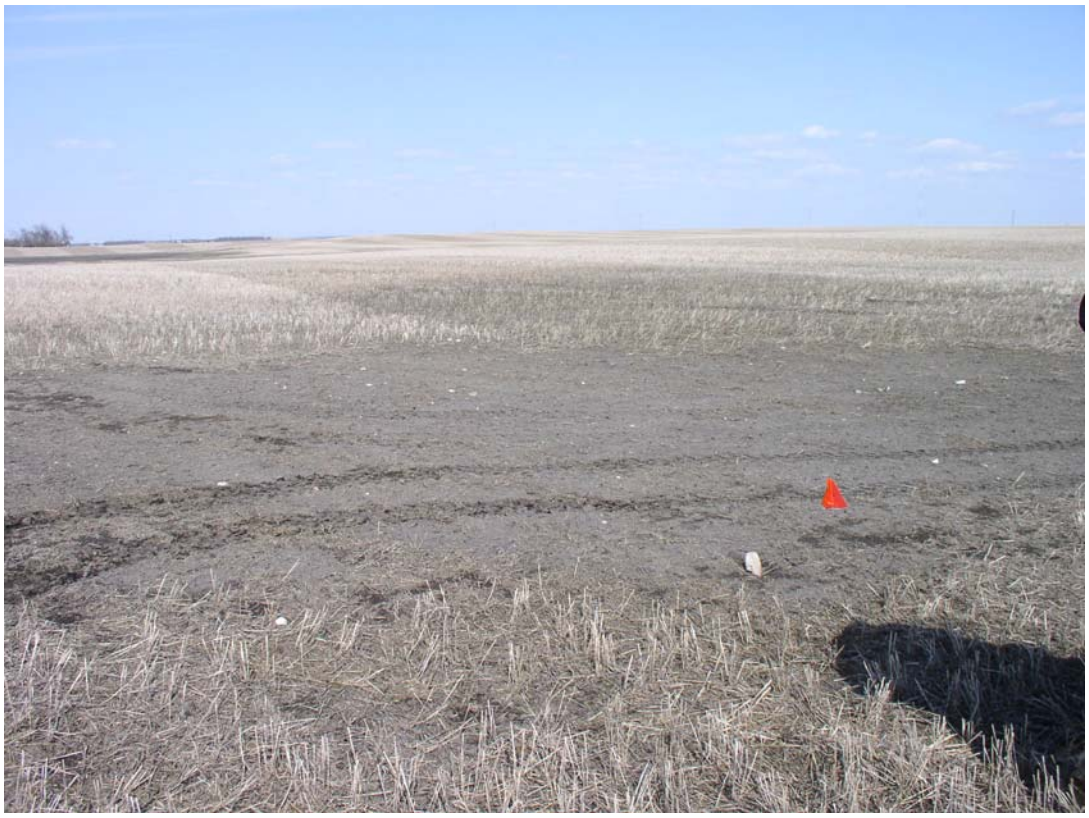
Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



142-28-22 View Facing East 04/28/08

Township 142
Range 57
Section 31

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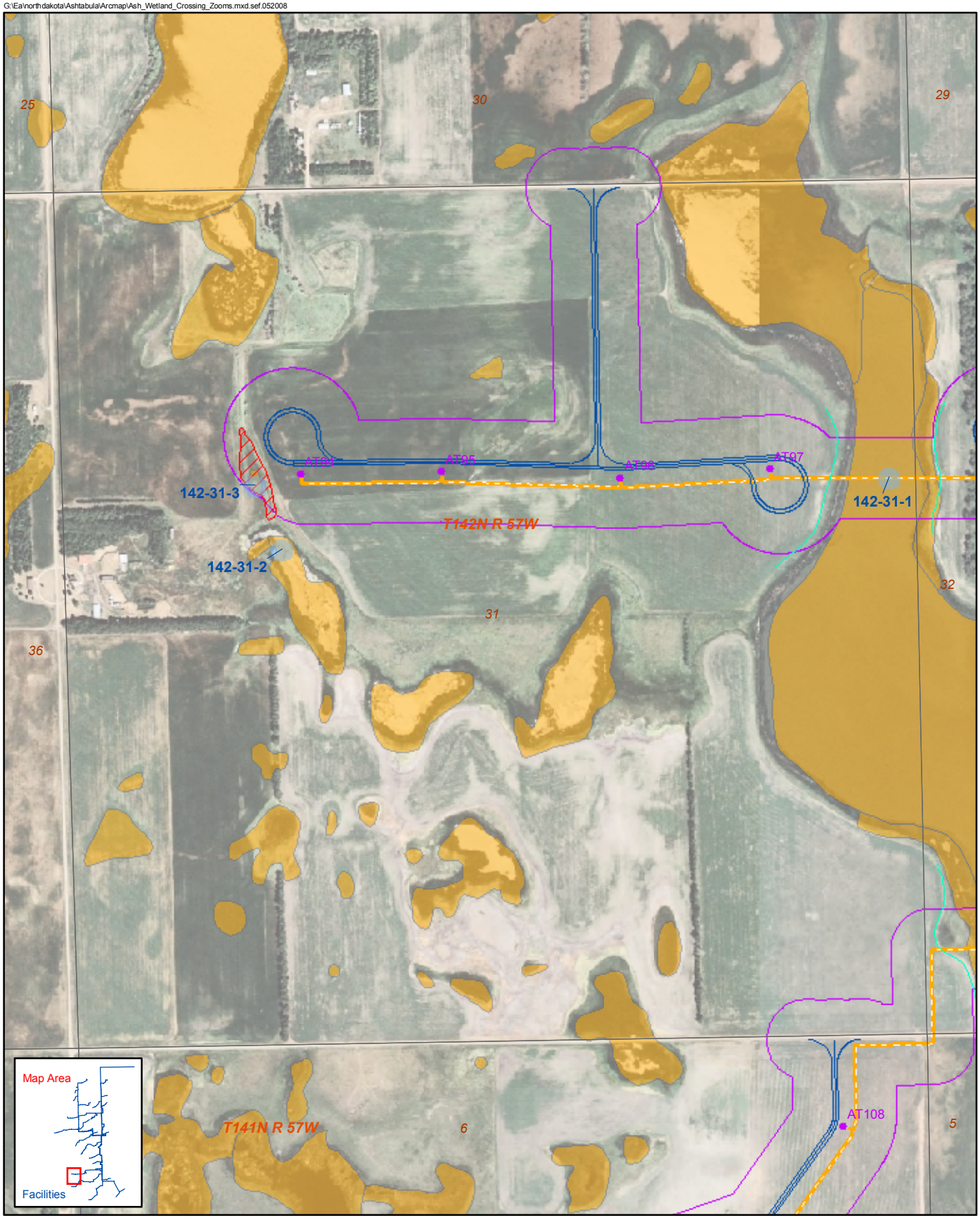

June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 31

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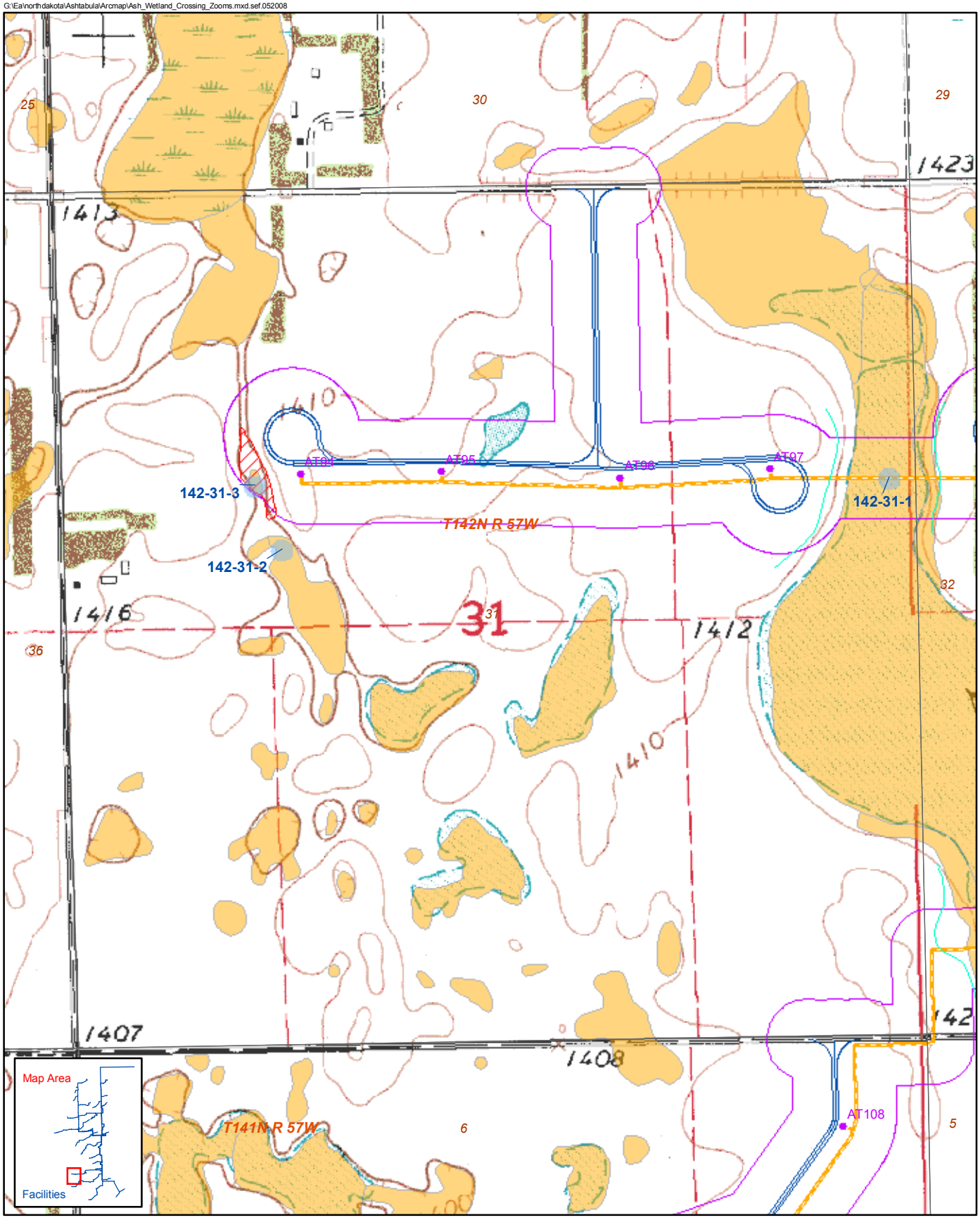

June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 31

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-31-1 East	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-31-1 East
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phragmites australis	PNEG	FACW	Typha angustifolia	PNEF	OBL
Zea Mays	AIG	NI	Salix sp.	S	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by non-hydrophytes.

Recently farmed corn field on the edge.

P: Perennial F: Forb
N: Native A: Annual
E: Emergent I: Introduced
G: Grass S: Shrub

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 30

Depth to Saturated Soil (inches) : N/A

Depth to Free water in Pit (inches) : N/A

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-31-1E View Facing North 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-31-1 West MT	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-31-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
I: Introduced

F: Forb
E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: VIew East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-31-1 west-side.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-31-2/3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-31-2/3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated by reed grass and cattail. Vegetation dominated by hydrophytes.

P: Perennial P: Perennial
N: Native N: Native
G: Grass E: Emergent
F: Forb

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos were taken looking West and South.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10yr 2/1			SicL 1msbk
7-16	E	2.5y 3/1			SicL

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 142-31-2 looking west.

Site 142-31-3 looking south.

Township 142
Range 57
Section 32

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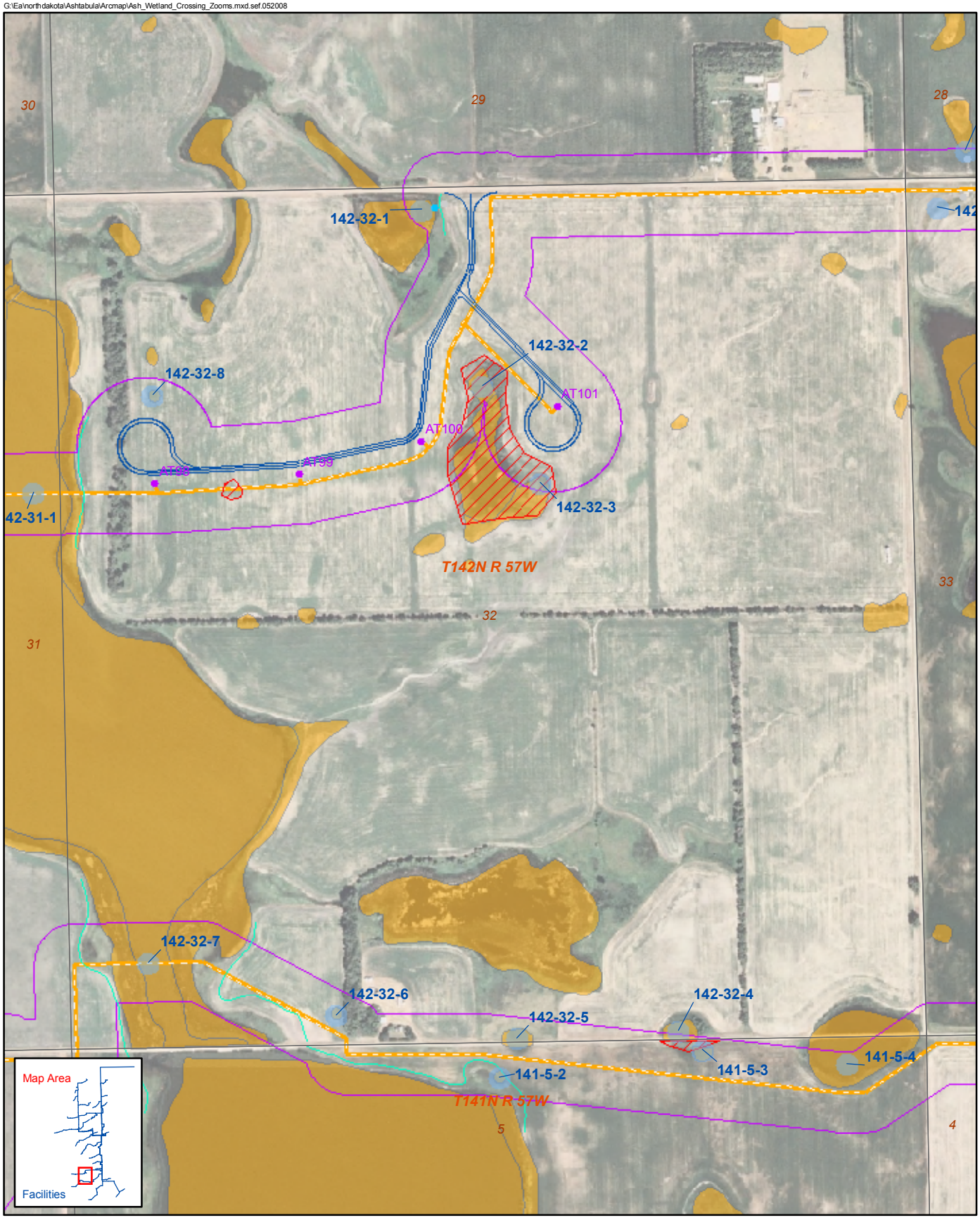

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 32

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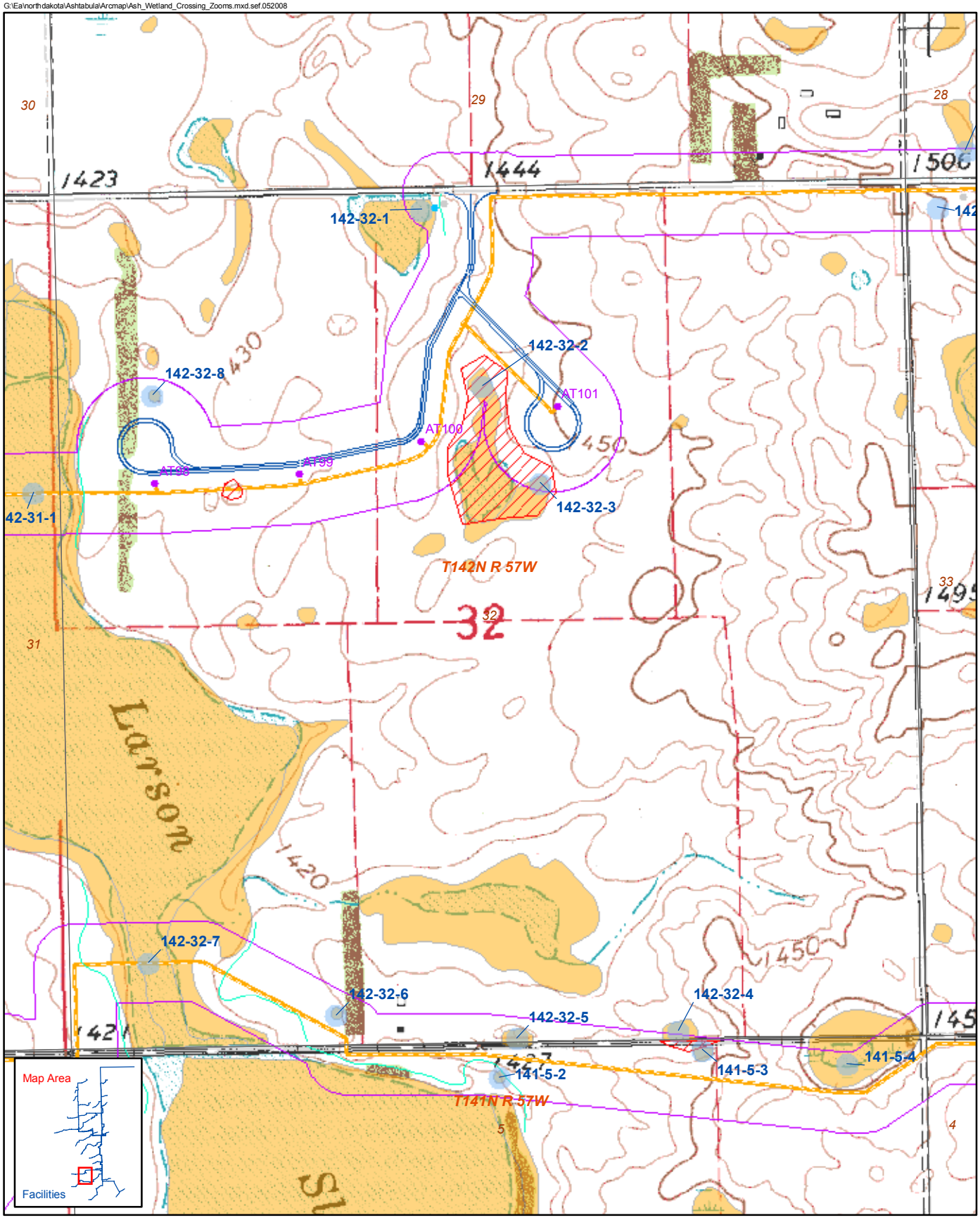

June 26 2008

N
W E
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0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 32

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-32-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-1 T1-A 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-32-1	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field.

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-1 T1-B 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-32-2/3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-2/3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Salix sp.	S	OBL
Polygonum pensylvanicur	ANEF	FACW	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial S: Shrub
N: Native A: Annual
E: Emergent G: Grass
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 30

Depth to Saturated Soil (inches) : N/A

Depth to Free water in Pit (inches) : N/A

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SiCL 1 msbk
6-16	Bg	5 Y 2.5/1			SiCL 1 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-2/3 View Facing South 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-32-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native
E: Emergent
F: Forb
I: Introduced

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-4 View Facing East 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-32-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Typha latifolia	PNEF	OBL
Polygonum hydropiperoid	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-5 View Facing Northeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-32-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Plowed Soybean Field
A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2.5/1			Sic 1msbk
6-16	Bq	2.5Y4/4			SiC 2csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-6 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-32-7	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 6

Depth to Saturated Soil (inches) : 6

Depth to Free water in Pit (inches) : 6

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-7 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 142-32-8	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-32-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field.

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 y 2.5/1			SICL 1msbk
7-16	Bq	5Y 3/1			SICL 2 csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-32-8 View Facing Northwest 04/30/08

Township 142
Range 57
Section 33

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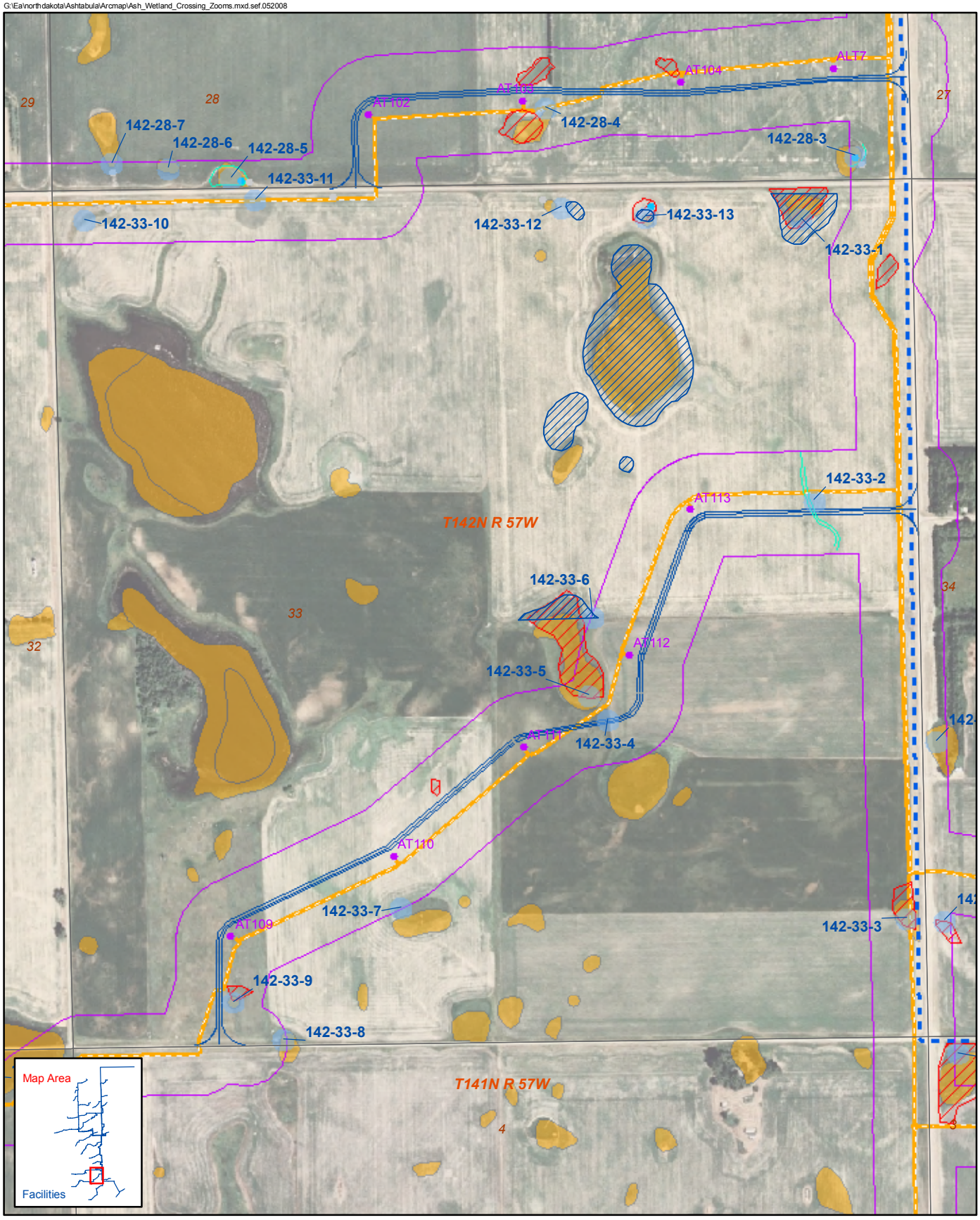

June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 33

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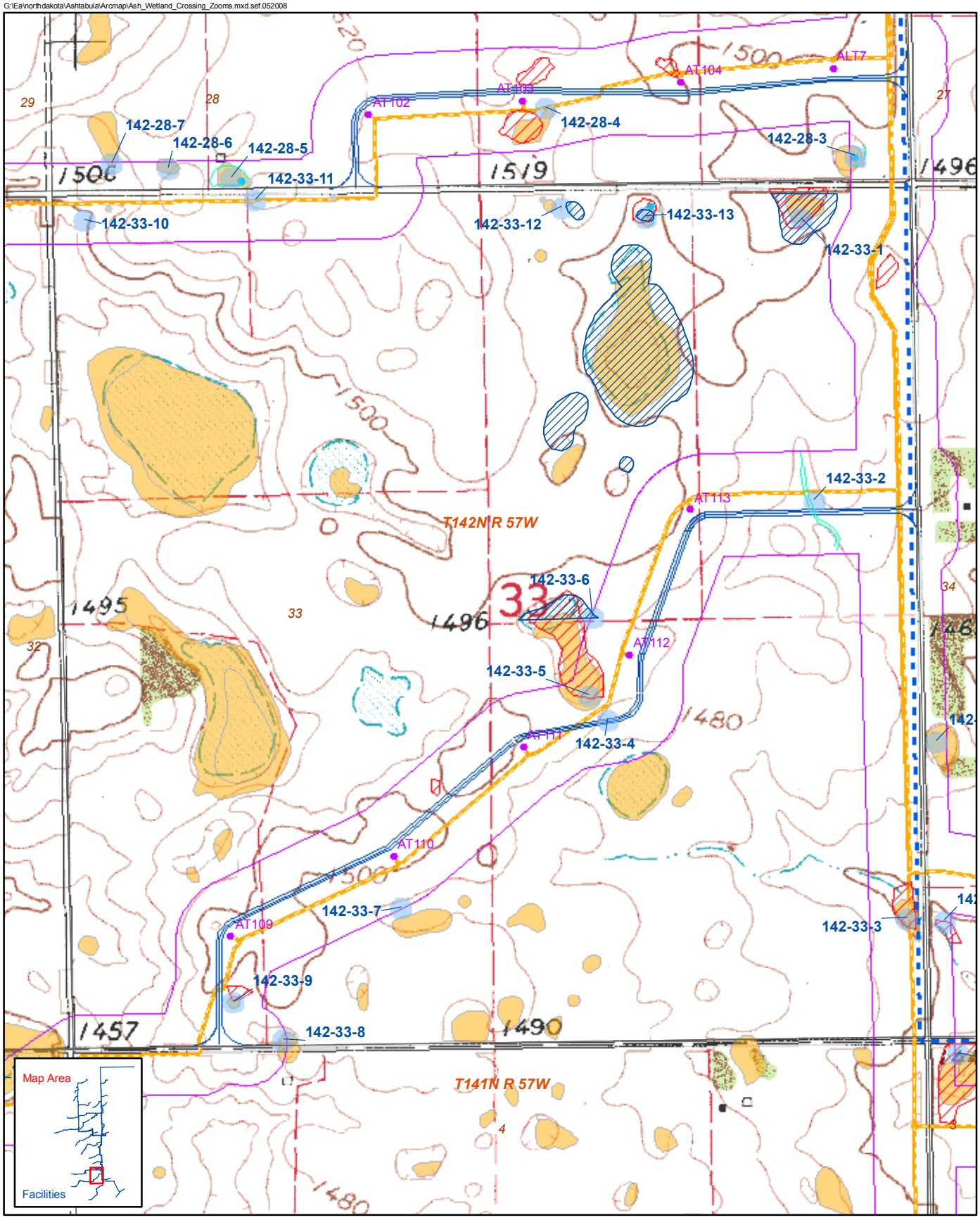

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 33

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-1	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Polygonum pensylvanicur	ANEF	FACW	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

A: Annual
E: Emergent
F: Forb
G: Grass
I: Introduced
N: Native
P: Perennial

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)
- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 3

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
This is a USFWS wetland with a 30' buffer surrounding it.

Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Somewhat poorly to pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil mail also contain Argiaquic Argialbolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-1 View Facing Southwest 04/28/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Plowed Corn Field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ○ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ⊙ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1), View Northwest (Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may contain Typic Calciudolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-2 View Facing Southeast 04/30/08

142-33-2 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC 1msbk
7-16	Bq	2.5Y3/1	2.5Y4/3	2mf	SiC 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-3 View Facing Northwest 04/30/08

142-33-4 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2.5

Depth to Saturated Soil (inches) : 2.5

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y2.5/1			SiC 2msbk
6-16	Bq	5Y2.5/1			SiC 2fsbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-5 View Facing North 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This Wetland was mapped with 142-33-5
P: Perennial G: Grass
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2.5

Depth to Saturated Soil (inches) : 2.5

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Typic Calciudolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-6 View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-7	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Polygonum hydropiperoid	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial I: Introduced
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Argiaquic Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-7 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-8	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+	Polygonum hydropiperoid	PNEF	OBL
Typha latifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 3.5

Depth to Saturated Soil (inches) : 3.5

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	well to moderately well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soils may also contain Aquic Cumulic Hapludolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-8 View Facing East 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-9	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI	Rumex crispus	PIF	FACW
Typha latifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Plowed Soybean Field
A: Annual P: Perennial
I: Introduced N: Native
F: Forb
H: Partly Woody

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5Y2.5/1			SiL 2msbk
6-10	E1	2.5Y3/1			SiL 3fpl
10-16	E2	2.5Y3/2	10YR4/4	3ff	SiL 2fpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-9 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

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Project/Site :	Ashtabula LLC 142-33-10	Date :	06/10/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RS, RH, ME	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : na

Depth to Free water in Pit (inches) : na

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1), View East (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 2/1			SIC 2msbk
6-16	Bq	5Y 2.5/1			SIC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-10 View Facing North 04/26/08

142-33-10 View Facing Northeast 04/30/08

142-33-10 View Facing East 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-33-11	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field, and swail was farmed through. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-11 View Facing East 04/26/08

142-33-11 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 142-33-12	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field.

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-12 View Facing East 04/26/08

142-33-12 View Facing West 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-33-13	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Xanthium strumarium	ANF	FAC	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial I: Introduced
N: Native A: Annual
E: Emergent G: Grass
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 142-33-13	Date :	04/26/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea Mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field.

Vegetation dominated by non-hydrophytes.

A: Annual
I: introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Argiaquic Argialbolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-13 T1-A 04/26/08

142-33-13 T1-B 04/26/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-14	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-14
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiC
7-16	Bq	2.5Y3/1			SiC

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-33-14 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-33-14	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-33-14
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Plowed Wheat Field
A: Annual
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiL
7-16	E	2.5Y3/1			SiL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Township 142
Range 57
Section 34

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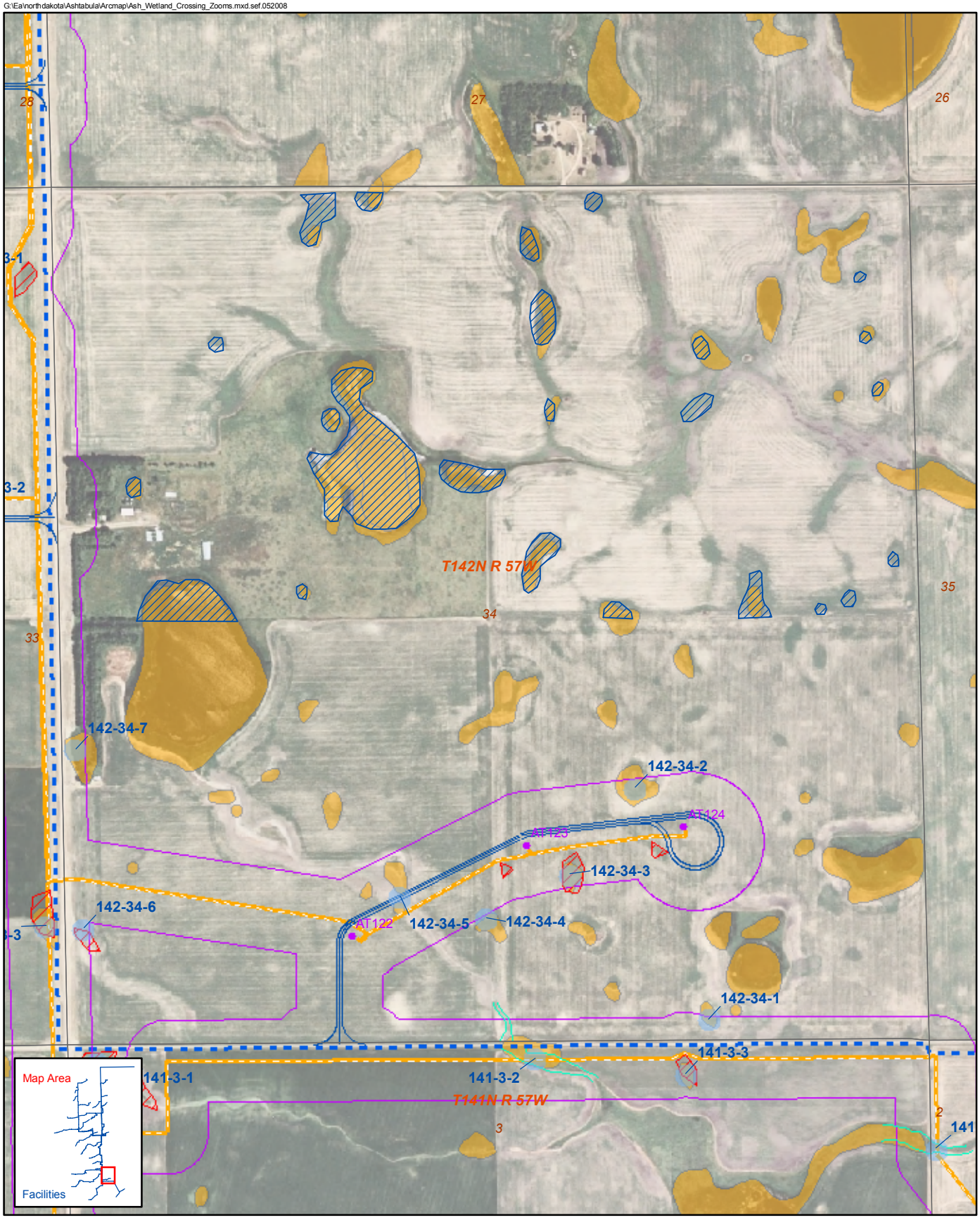

June 26 2008

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0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 34

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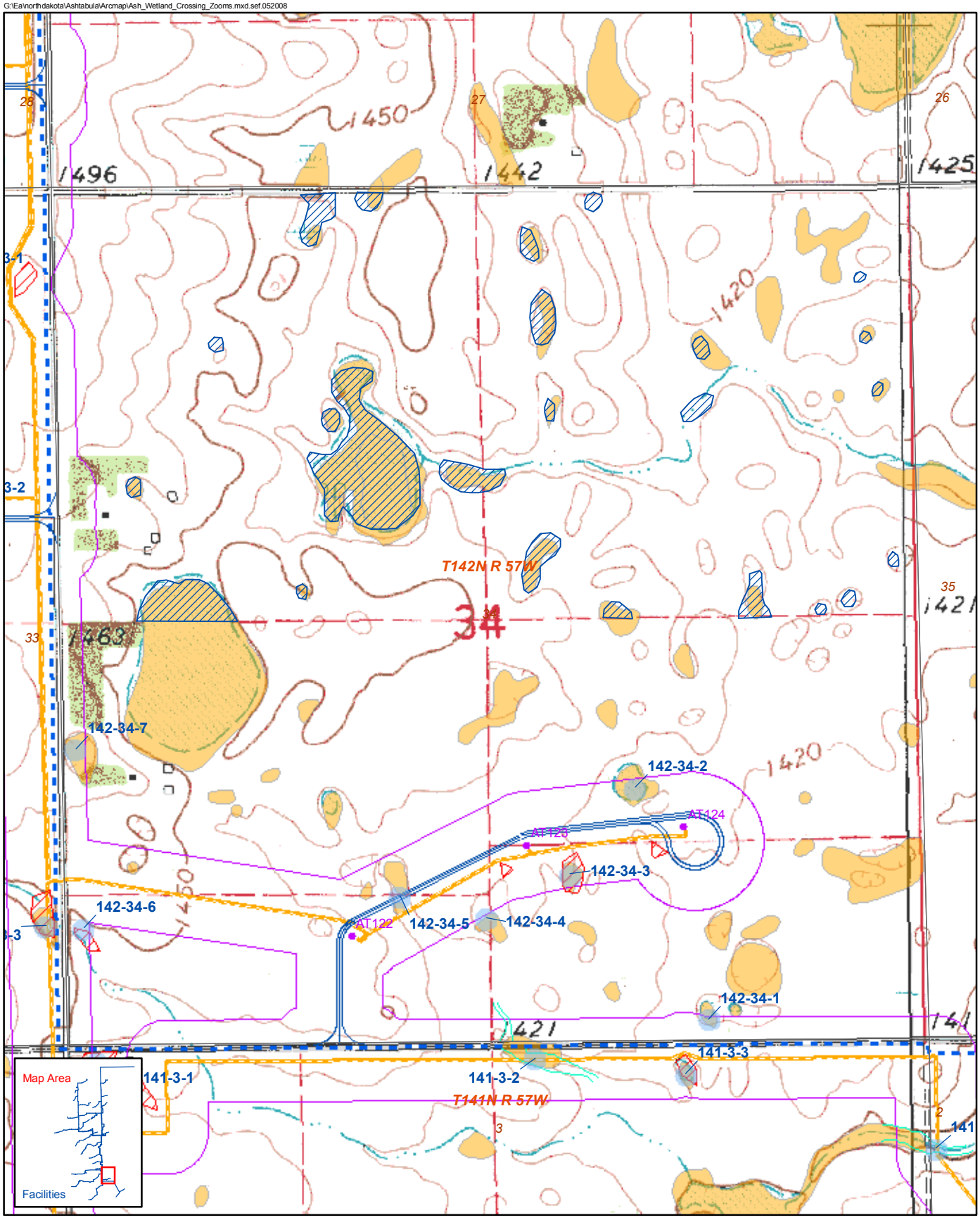

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 142
Section 34

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may contain Argiaquic Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-1 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-2	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may contain Argiaquic Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-2 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/AQUIC CUMULIC H	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-3 View Facing Southwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-3B	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-3B
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**KRANZBURG-LISMORE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	CALCIC/AQUIC CUMULIC H	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2.5/1			SiC 1msbk
6-11	Bq1	2.5Y3/1			SiC 1msbk
11-16	Bq2	2.5Y3/2			SiC 1msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-3B View Facing West 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-4	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may contain Argiaquic Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-4 View Facing Southeast 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-5	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may contain Argiaquic Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-5 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-6	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SVEA-BARNES**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	PACHIC/CALCIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-6 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

E: Emergent P: Perennial
F: Forb
G: Grass
N: Native

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 2.5

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SVEA-BARNES**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	PACHIC/CALCIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-7 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-8	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☑
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2.5/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiC 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-8 View Facing Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-9	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☑
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	5Y2.5/1			SiC 1msbk
7-16	Bq	5y3/1			SiC 2csbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-9 View Northwest 04/30/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 142-34-10	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	142-34-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☑ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may contain Argiaqui Argialbolls

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Field Drainage

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

142-34-10 View Facing Southeast 04/30/08

Township 143
Range 57
Section 13

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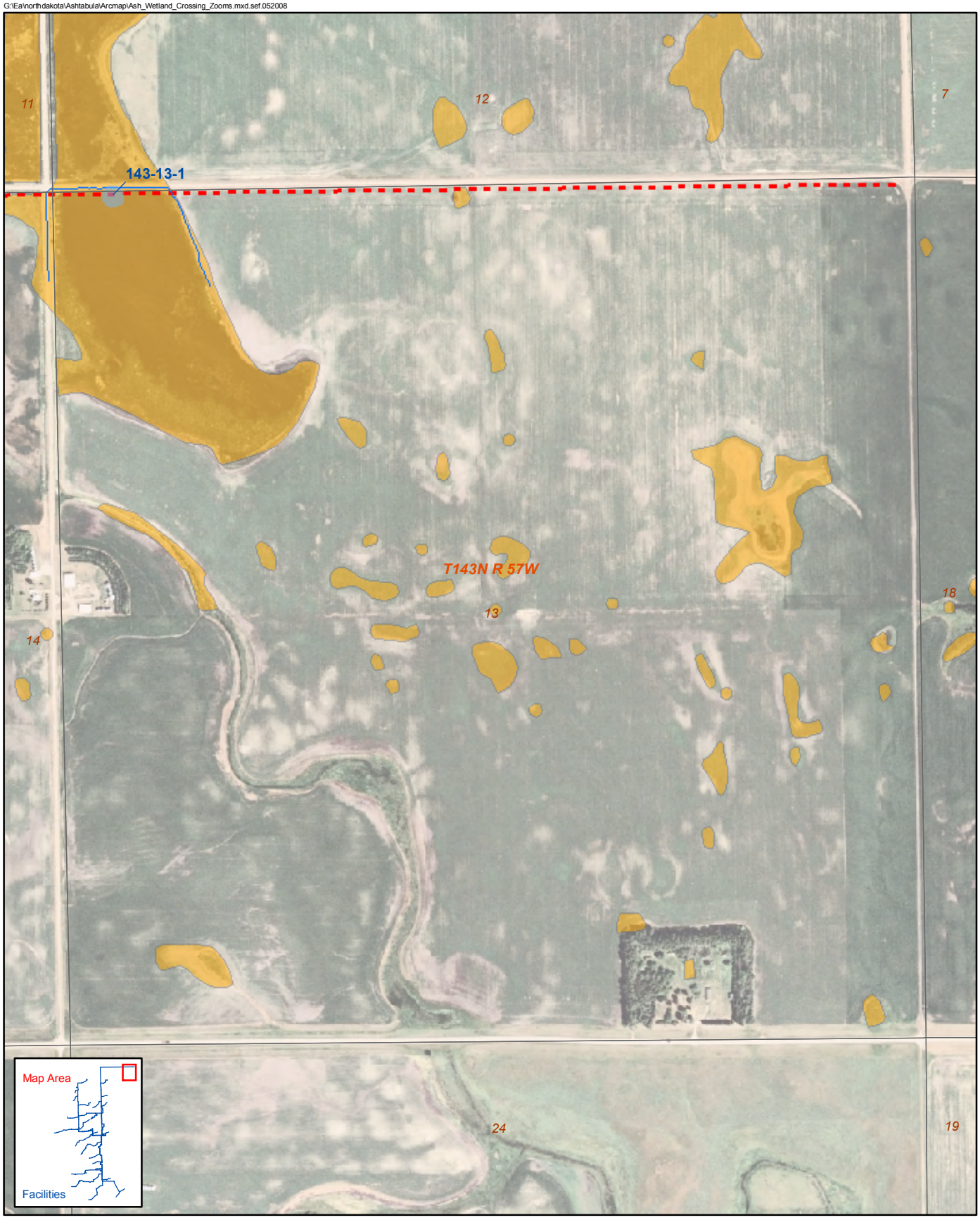

June 26 2008

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W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 13

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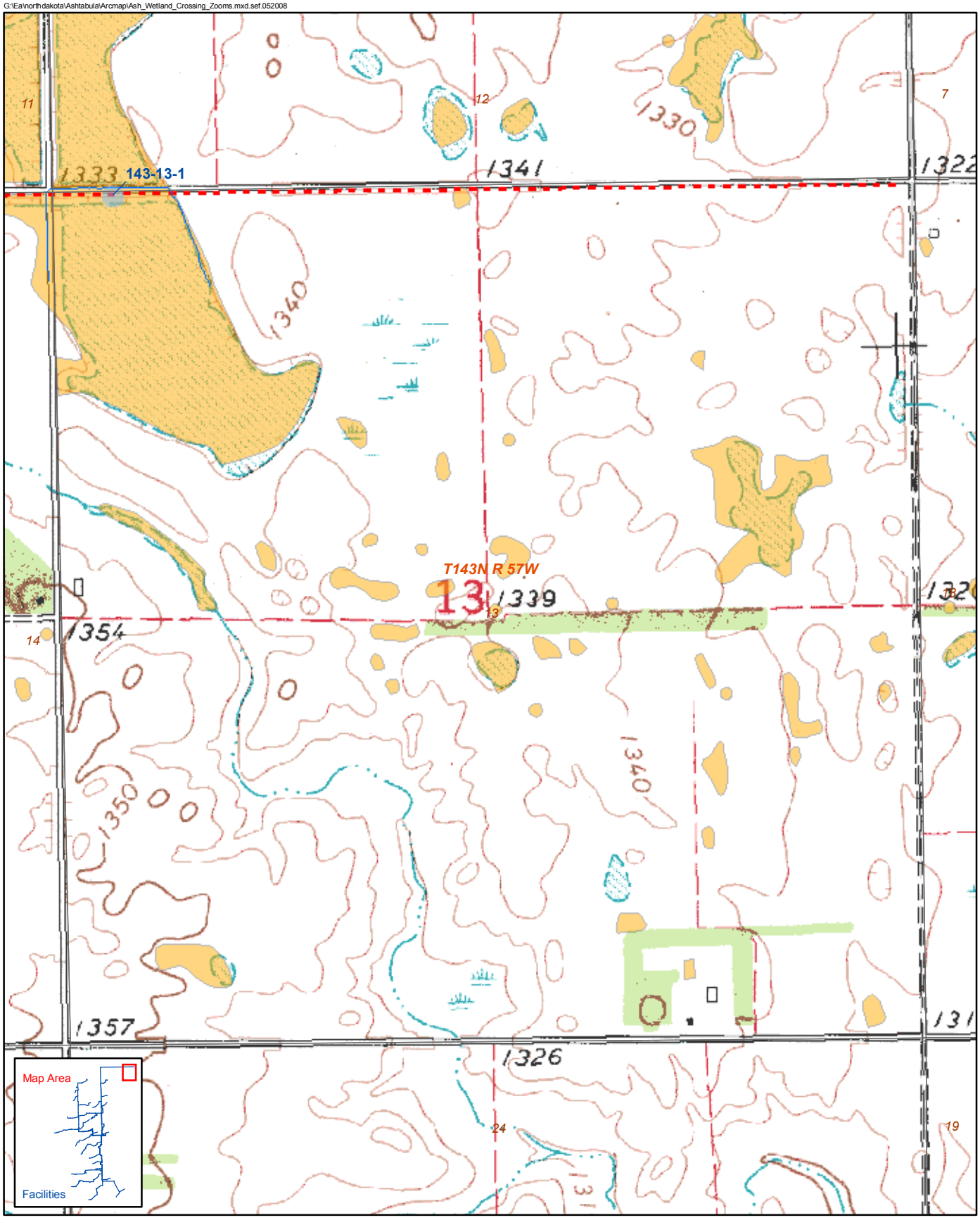

June 26 2008

N
W E
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0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 13

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-13-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-13-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

A: Annual
E: Emergent
F: Forb
N: Native
P: Perennial

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1), View South (Page 2), View South (Page 3)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**COLVIN**	Drainage Class :	Poorly to very poorly d
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-13-1 View Facing South 04/29/08

143-13-1 View Facing South 04/29/08

143-13-1 View Facing West 04/29/08

Township 143
Range 57
Section 14

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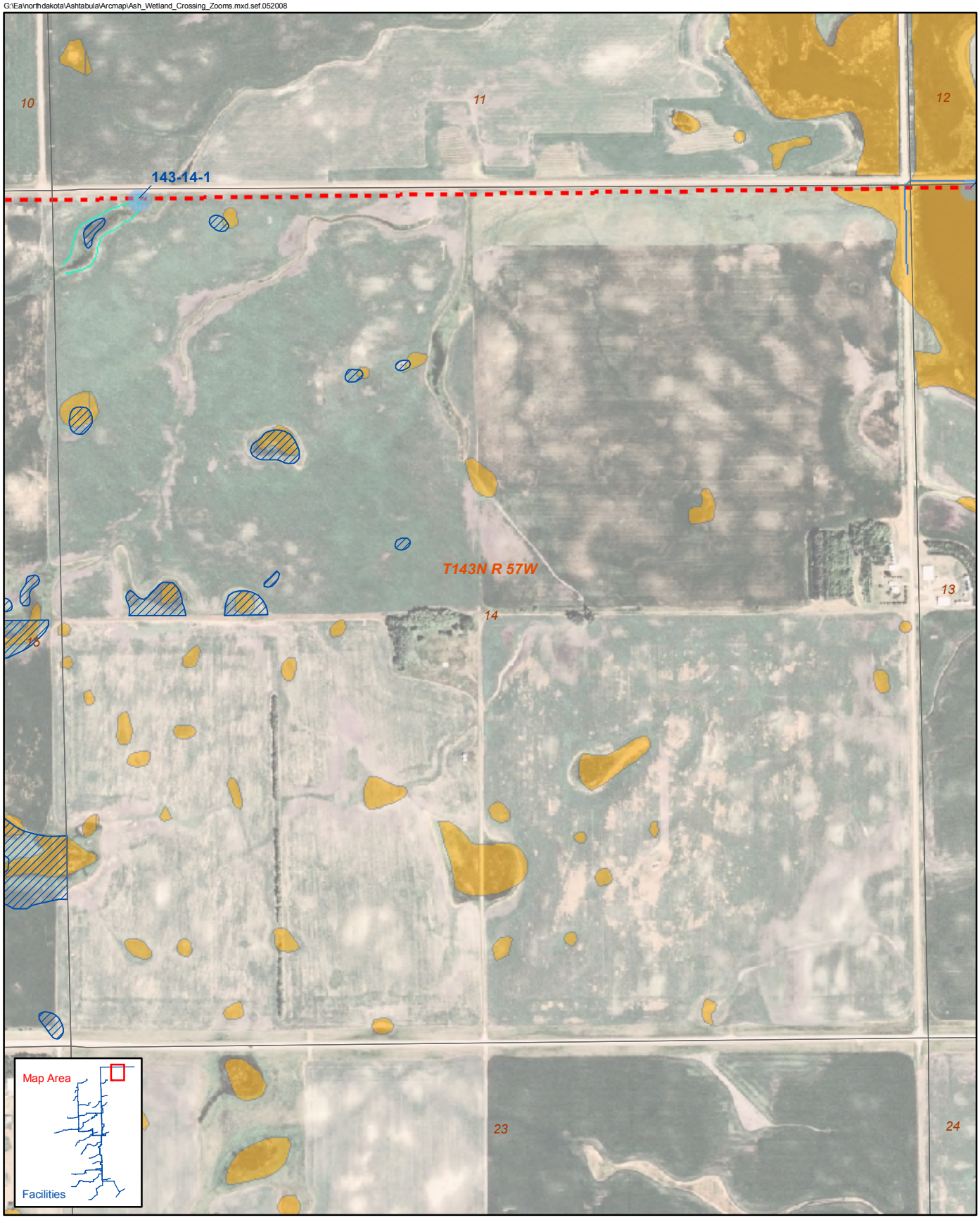

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 14

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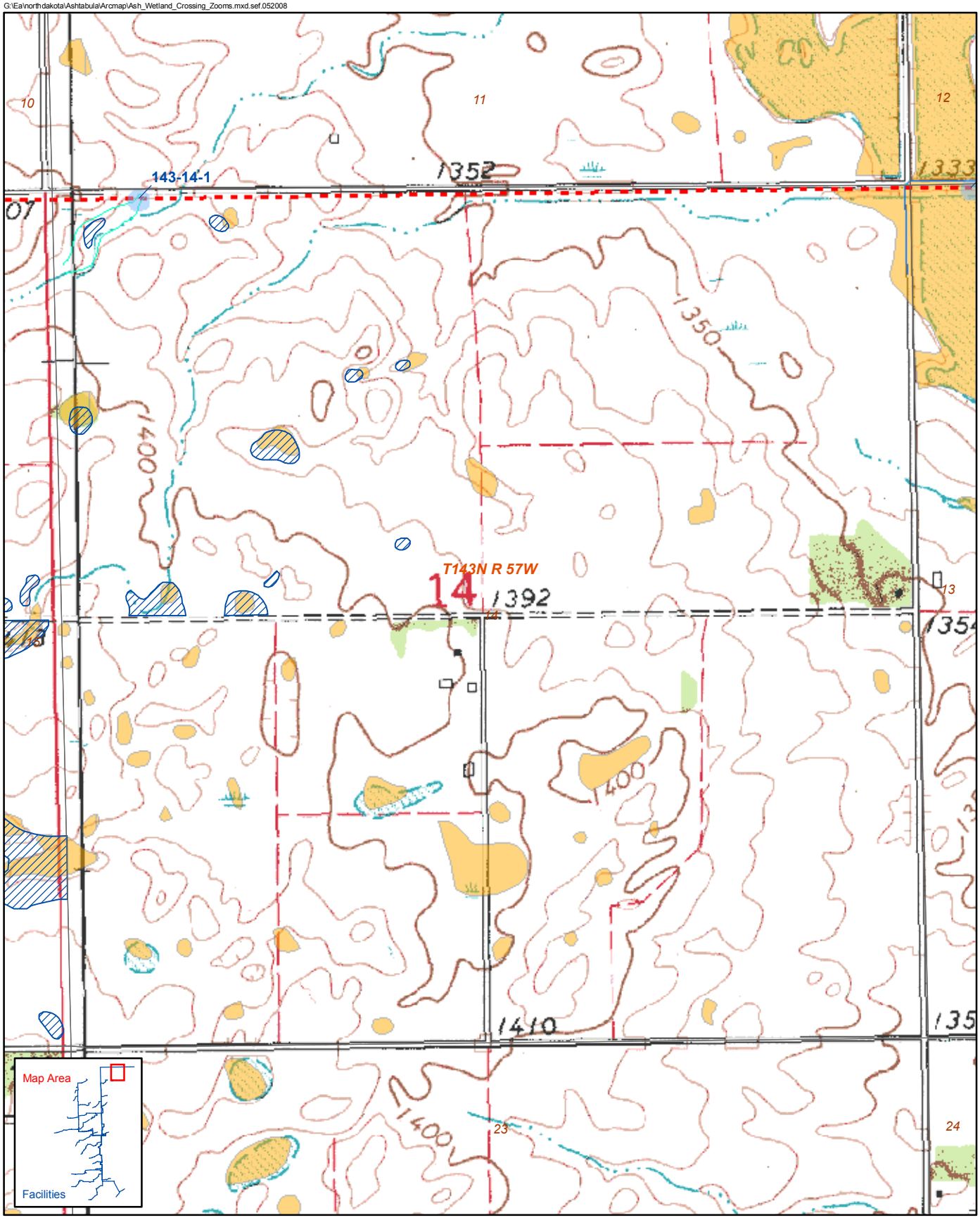

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 14

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-14-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-14-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Salix discolor	NS	FACW	Phalaris arundinacea	PNG	FACW+
Typha angustifolia	PNEF	OBL	Solidago Sp	PFH	NI
Bromus Sp.	PG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

N: Native
S: Shrub
P: Perennial
G: Grass

E: Emergent
F: Forb
H: Partly Woody

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : 8

Depth to Free water in Pit (inches) : 6

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	Moderatly well to well d
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC/PACHIC HAPLUDC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-14-1 View Facing Southeast 04/29/08

Township 143
Range 57
Section 15

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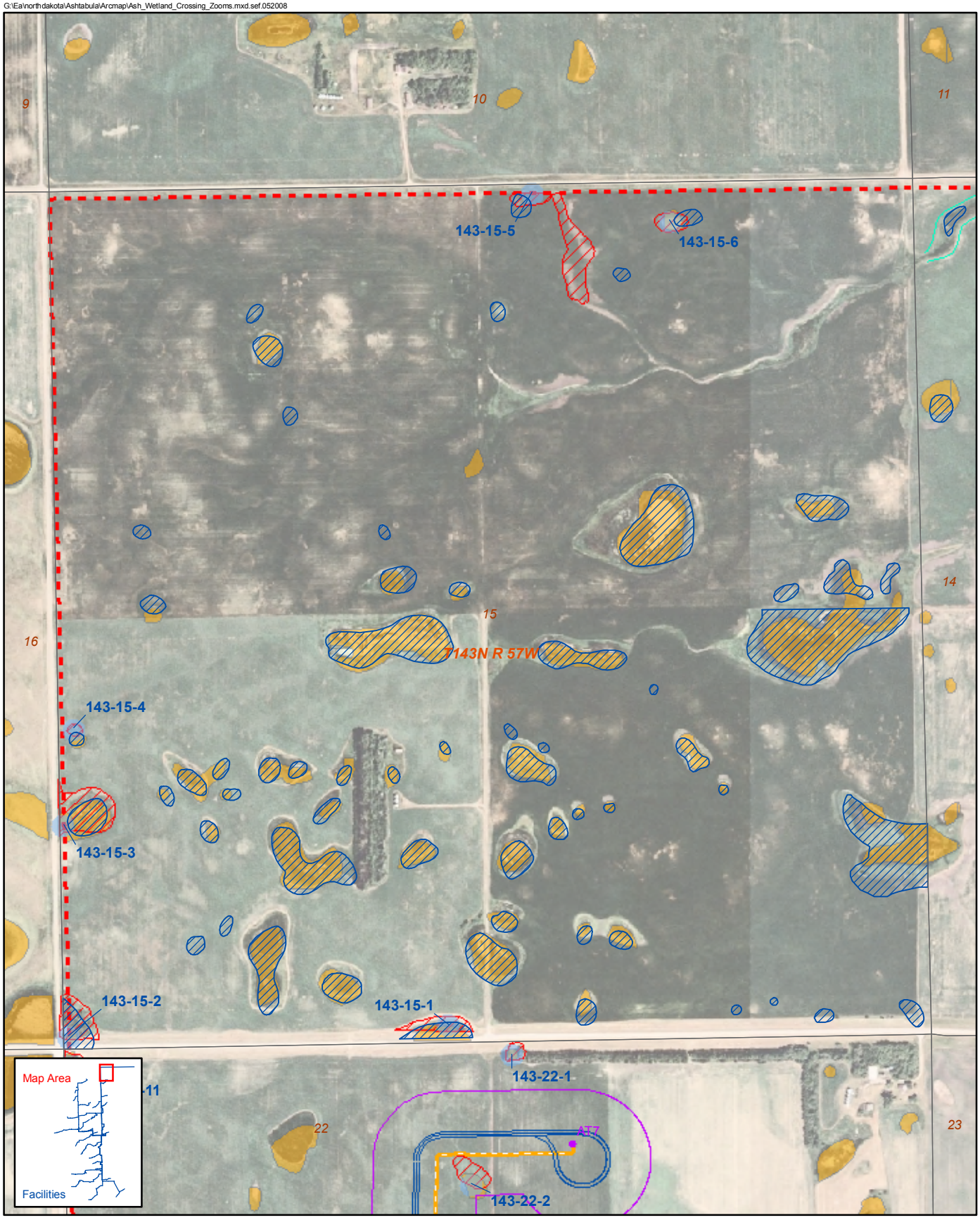

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 15

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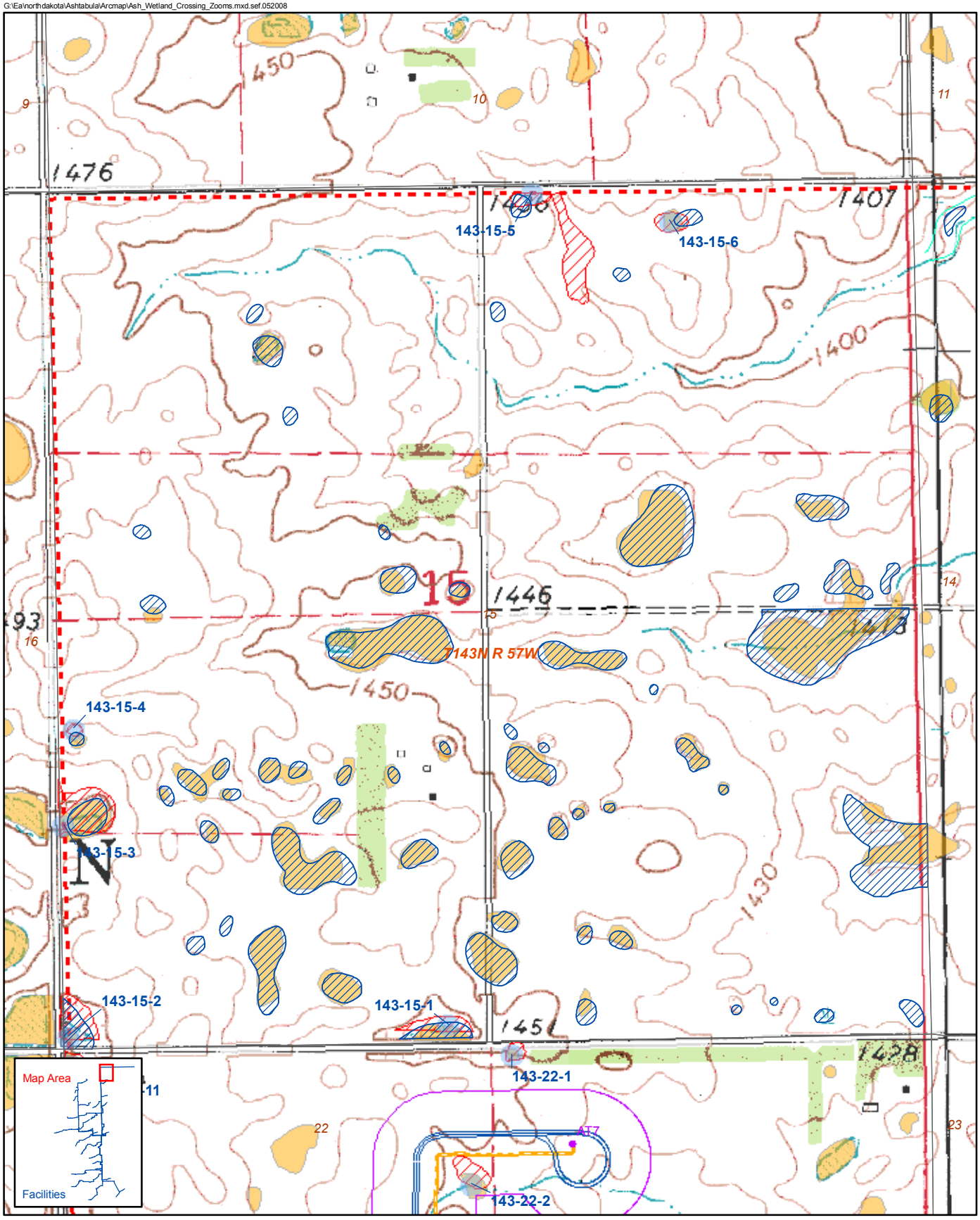

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 15

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-15-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial F: Forb
N: Native G. Grass
E: Emergent S: Shrub

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-1 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-15-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial A: Annual
N: Native G: Grass
E: Emergent I: Introduced
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-2 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-15-3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial F: Forb
N: Native A: Annual
E: Emerent G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5 Y 2.5/1			SiL 3fsbk
7-16	Bq	5 Y 2.5/1			SiL 3fsbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-3 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-15-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-4 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-15-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-5 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-15-5B	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-5B
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual I: Introduced
F: Forb H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-5B View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-15-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-15-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual I: Introduced
F: Forb H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-15-6 View Facing Northwest 04/29/08

Township 143
Range 57
Section 19

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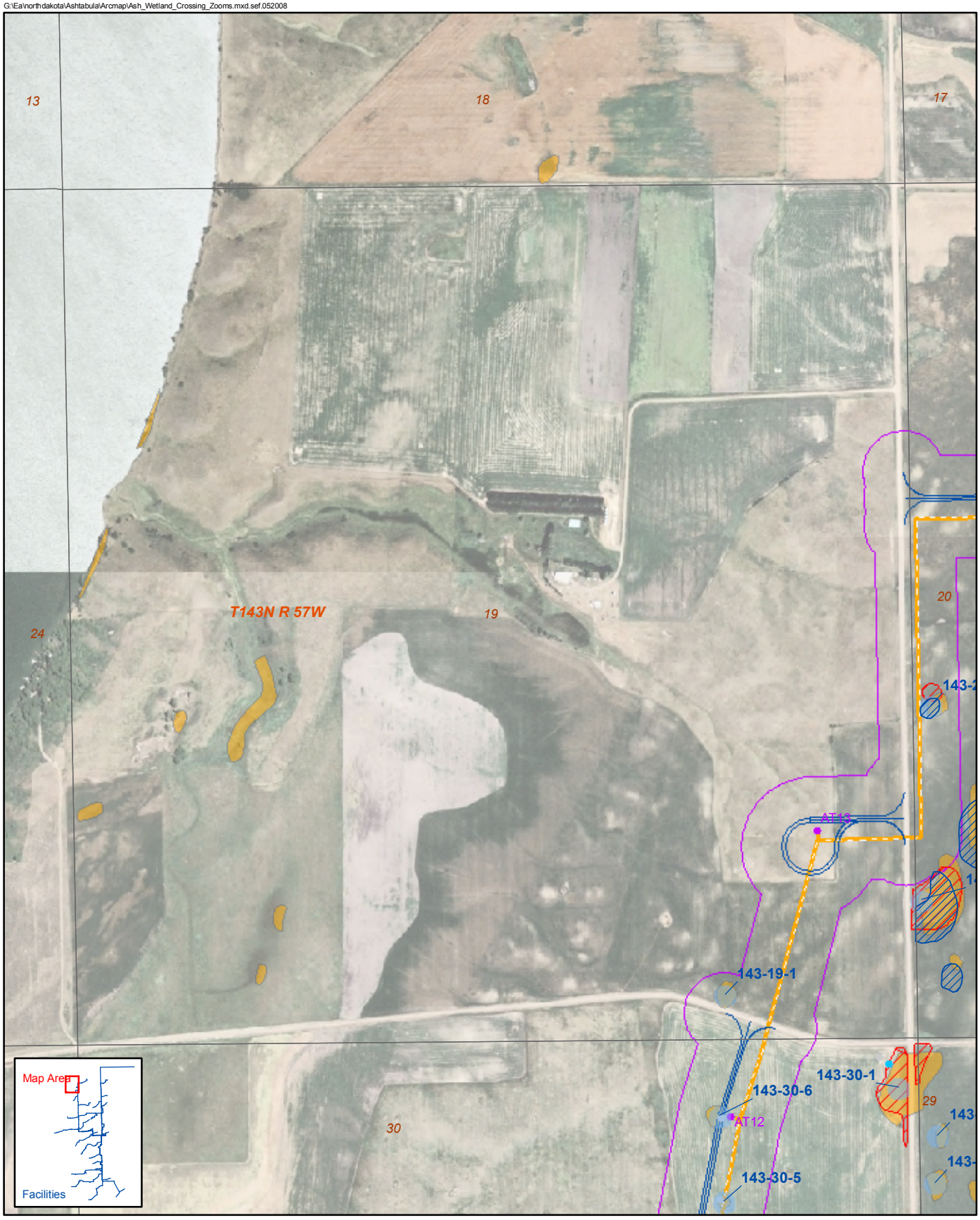

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 19

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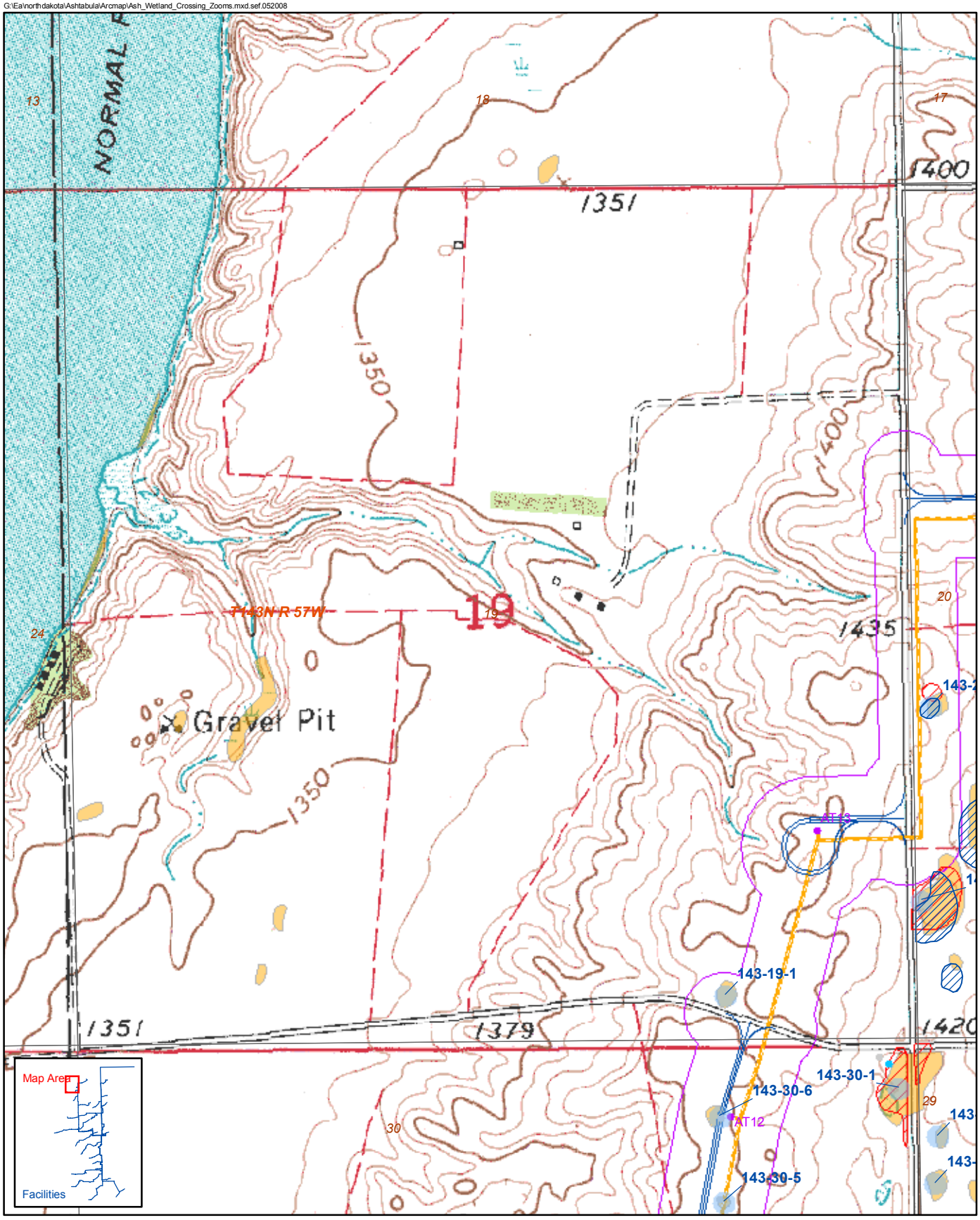

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 19

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-19-1 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-19-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-19-1 looking north.

Township 143
Range 57
Section 20

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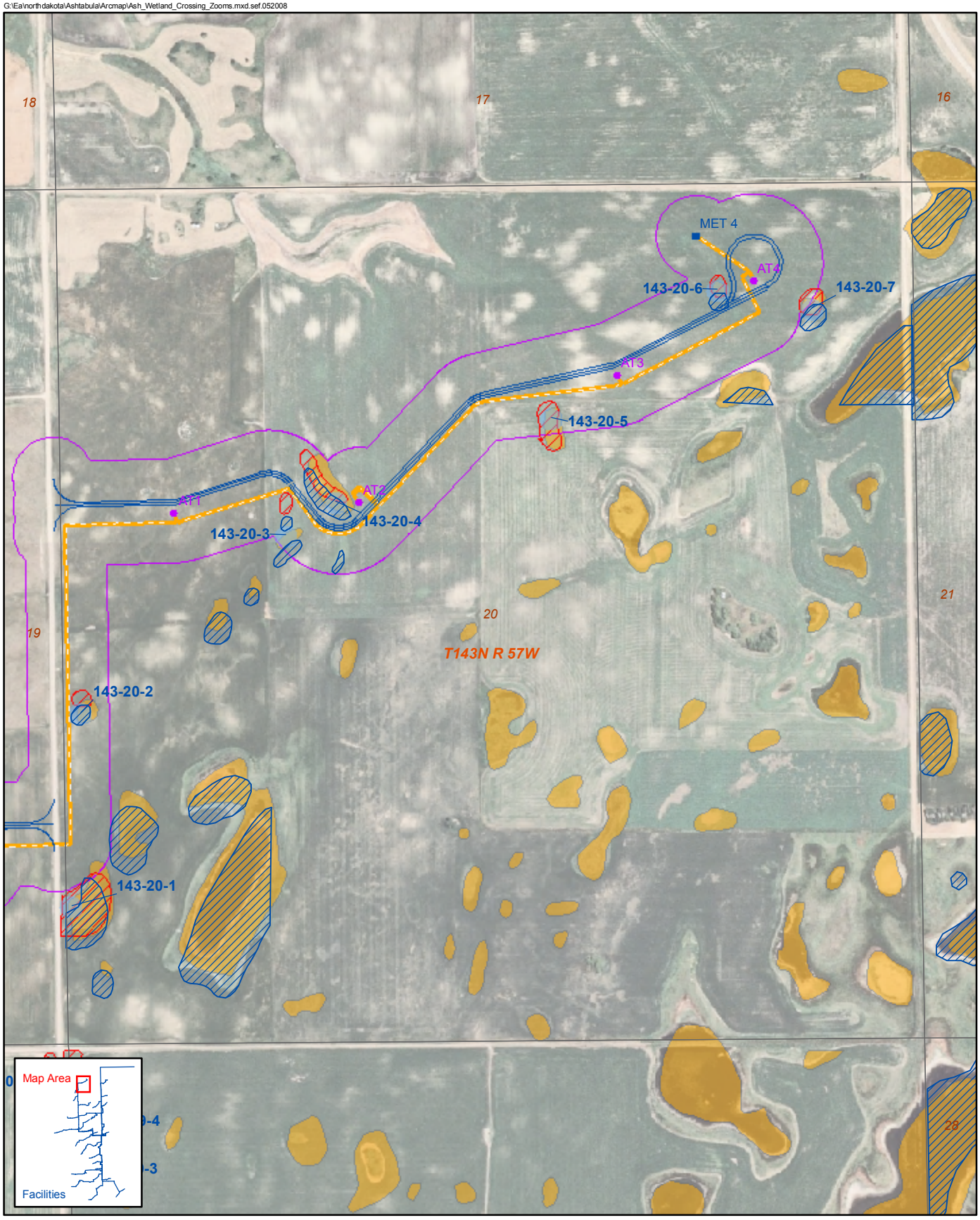

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 20

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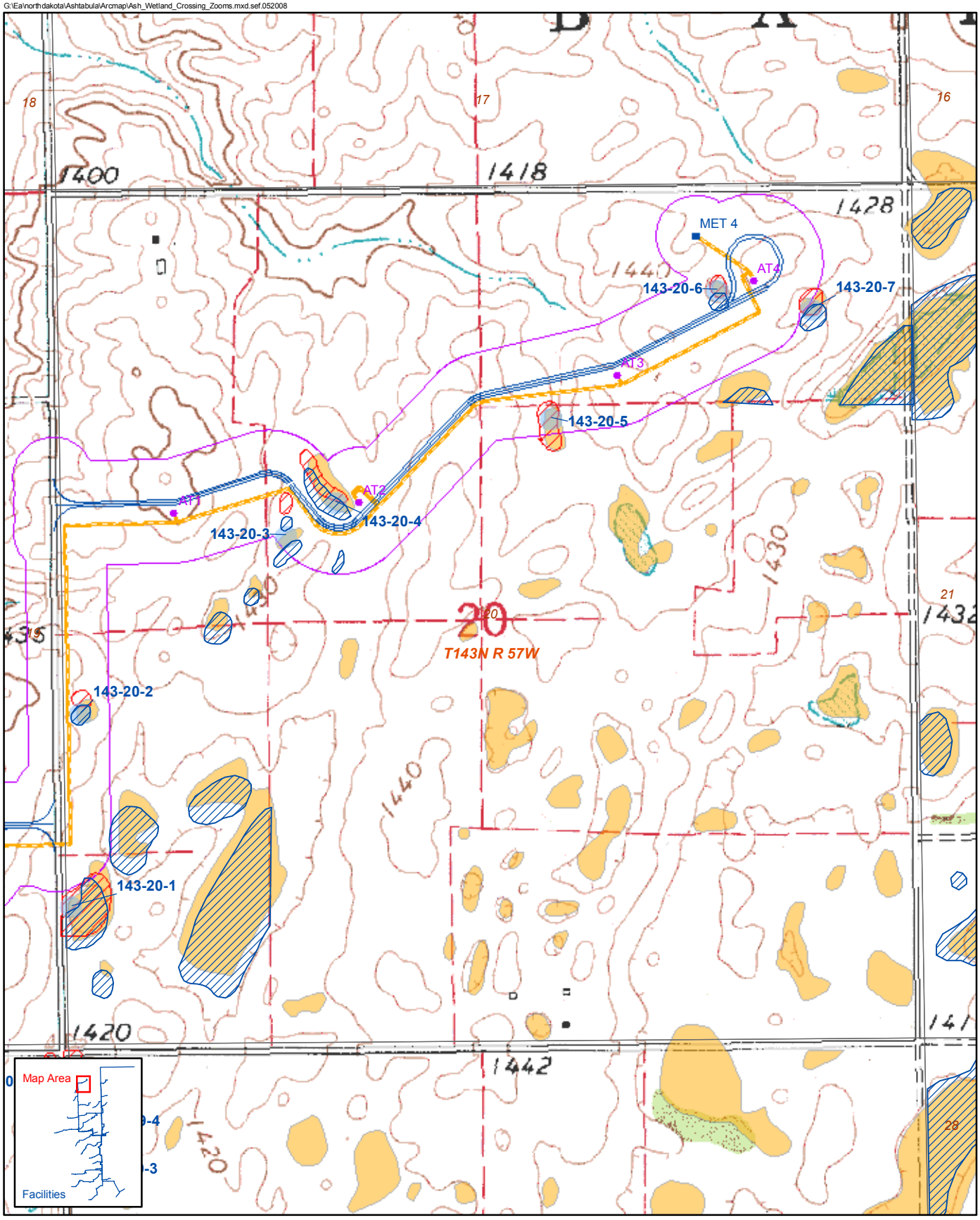

June 26 2008

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TETRA TECH, INC.

- Section
- NWI Wetland Area
- Wetland Easement 3/7/2008
- Crossing Location
- Turbine Location
- Collector Line
- Access Road
- Permanent T-Line
- Temporary T-Line
- Facility Buffer
- Culvert
- Non_wet_
- Wetland_
- Line_gen
- RPW2
- Wetland2
- Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 20

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass

Vegetation dominated by hydrophytes.
Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☑
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y2.5/1			SiCL 2msbk
7-16	Bq	5y3/1			SiCL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☑ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-1 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed corn field
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2/1			SiCL 1msbk
6-16	E	2.5Y3/1			SiCL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-2 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly Drained
(Series and Phase)	Drained	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-3 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5Y2/1			SiCL 1msbk
6-11	E1	2.5Y3/1			SiCL 2mpl
11-16	E2	2.5Y3/1		mcp 5YR4/4	SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-4 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	2.5Y2/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-5 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	Argiaquic Argialbolls	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2/1			SiL 1msbk
7-16	E	2.5Y3/1		1 FT 5YR4/3	SiCL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-6 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-20-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-20-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Rumex crispus	PIF	FAC	Polygonum pensylvanicur	ANEF	FACW
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

A: Annual I: Introduced
E: Emergent N: Native
F: Forb P: Perennial
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y2/1			SiCL 1msbk
7-16	E	2.5Y3/1			SiL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-20-7 View Facing West 04/29/08

Township 143
Range 57
Section 21

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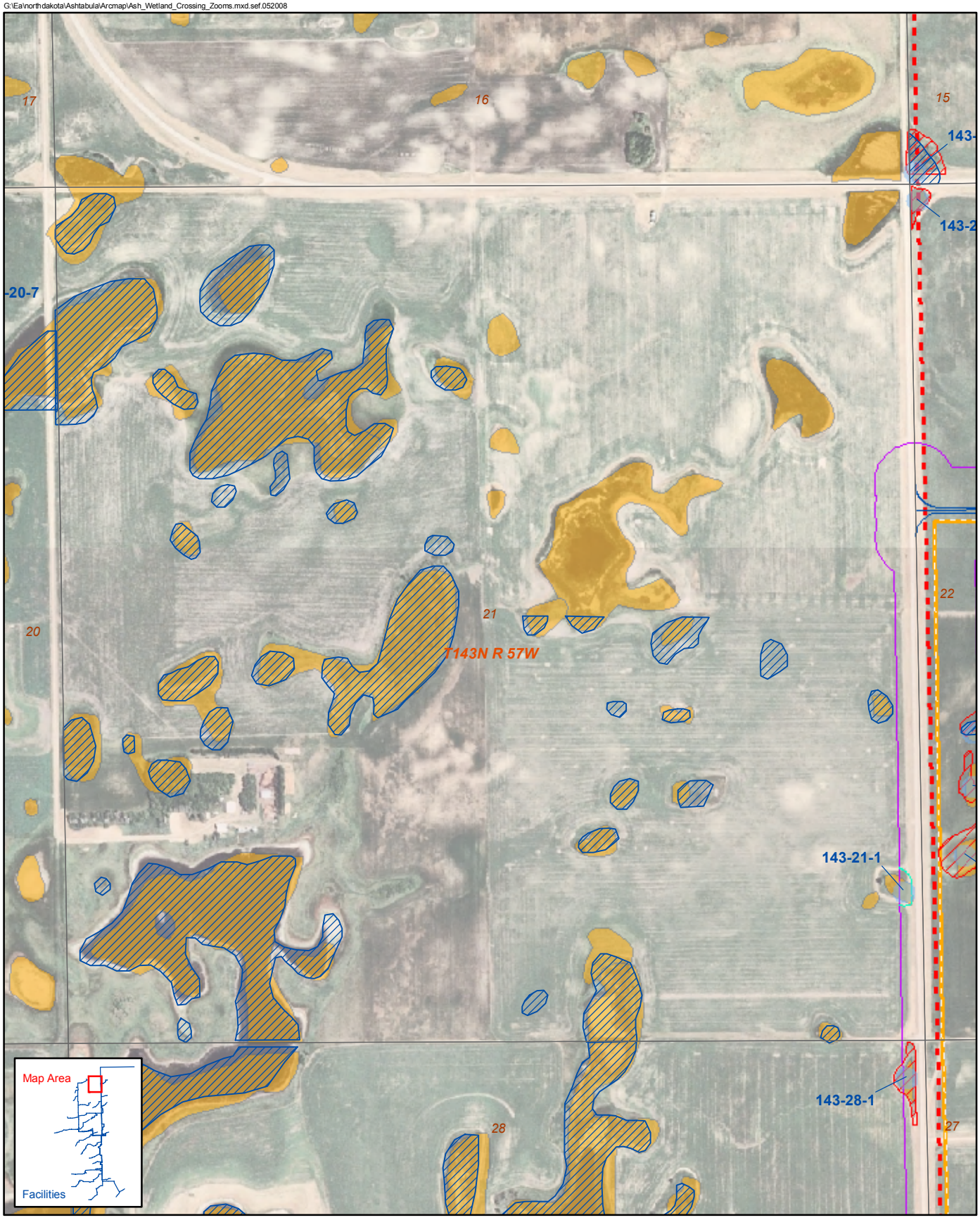

June 26 2008

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TETRA TECH, INC.

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 21

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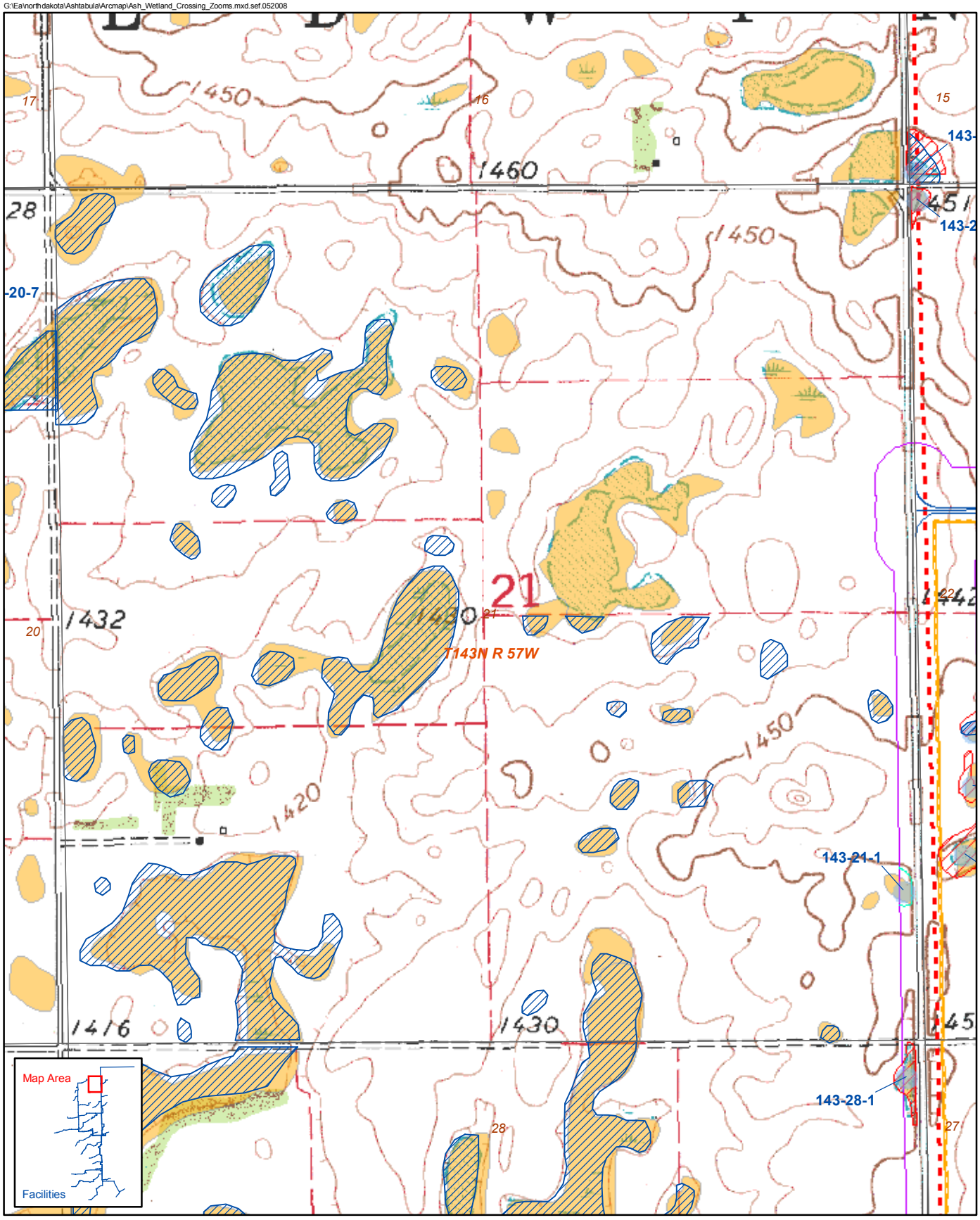

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 21

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-21-1 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-21-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming corn.

Site 143-21-1 looking south.

Township 143
Range 57
Section 22

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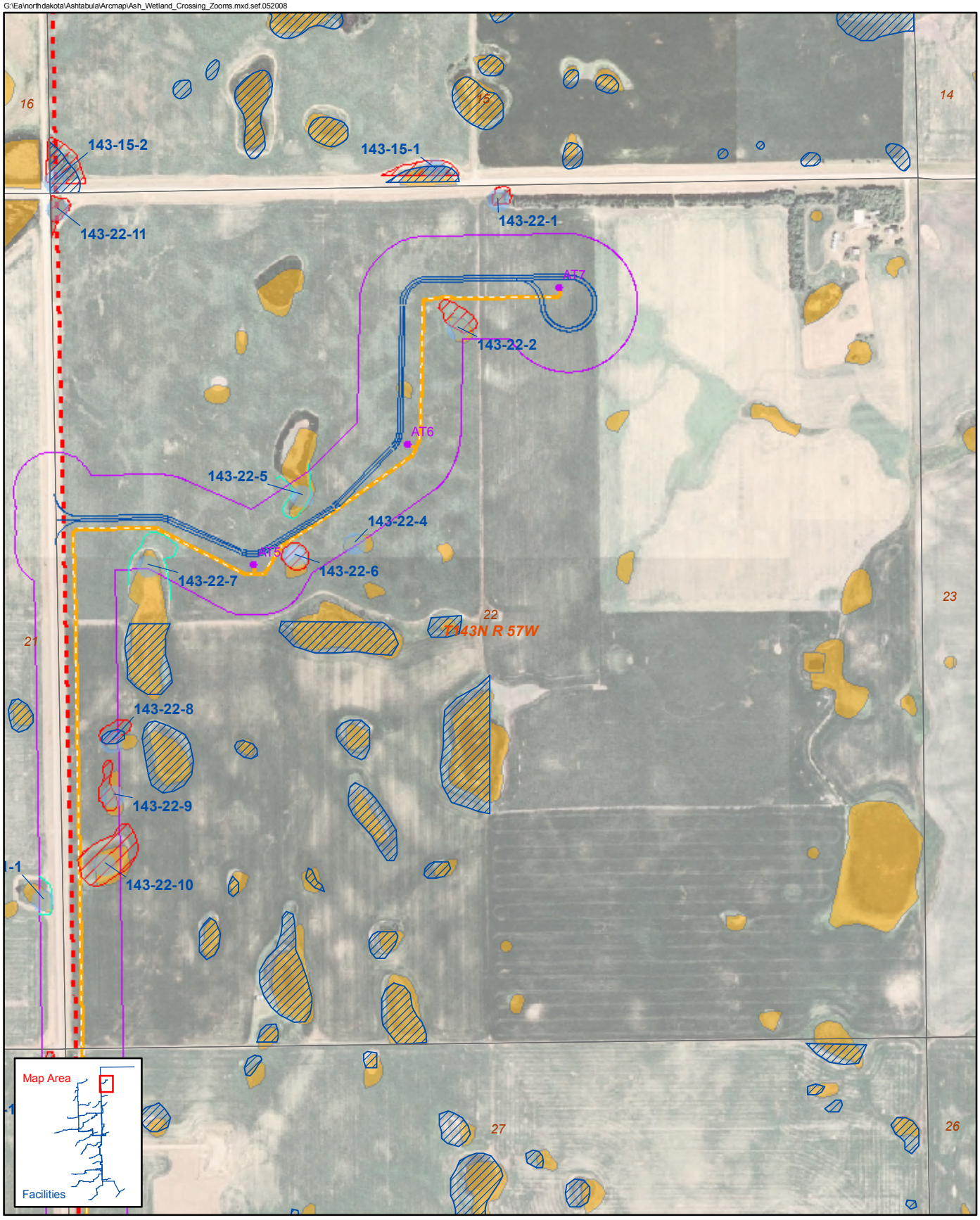

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 22

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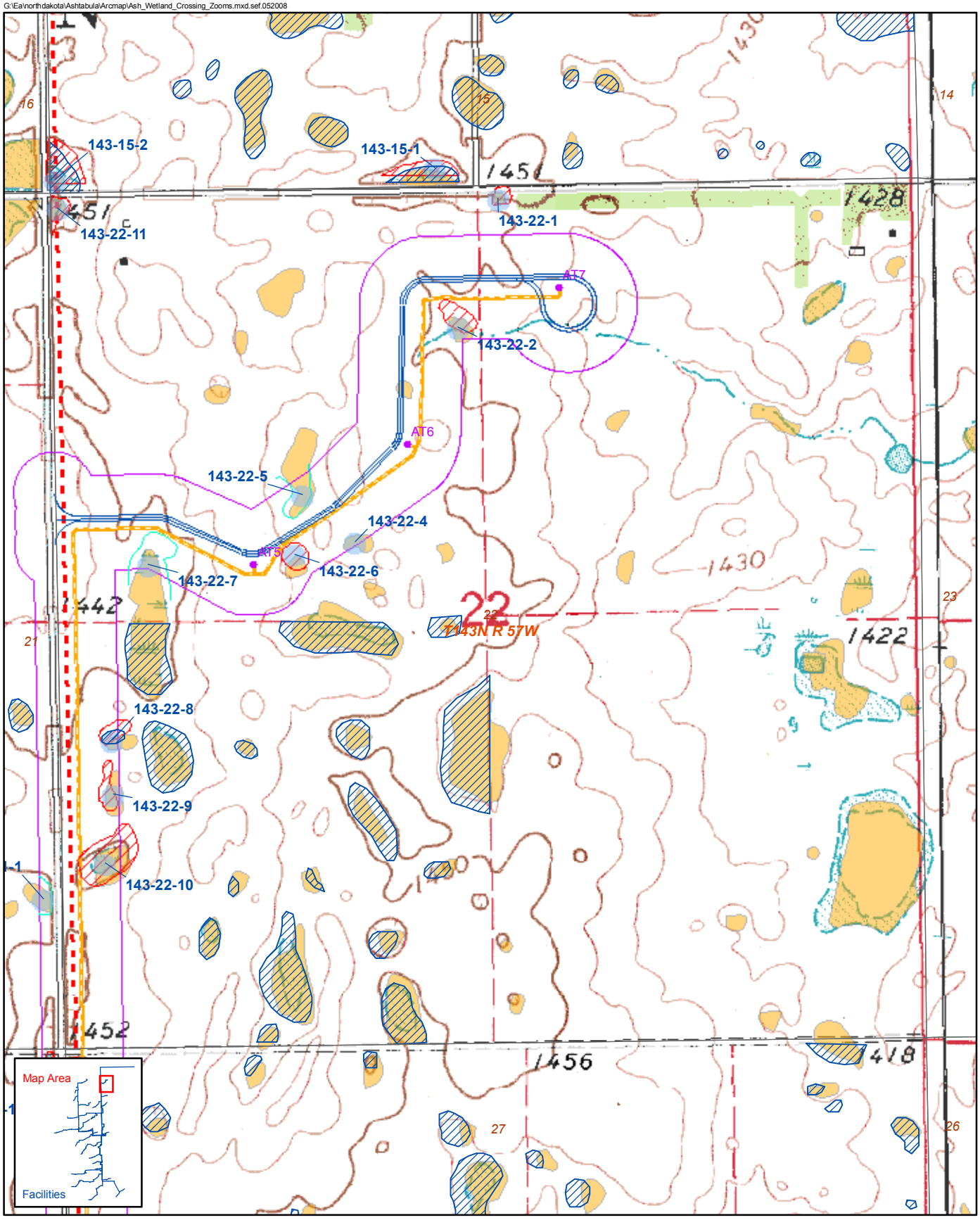

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 22

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Salix alba	IT	FACW	Phalaris arundinacea	PNG	FACW+
Polygala sanguinea	ANF	FACW	Polygonum pensylvanicur	ANEF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

The land is isolated along the roadside, forested with south scrub, and is herbacious.

I: Introduced
T: Tree
P: Perennail
A: Annual
N: Native
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 2/1			SiCL 1 msbk
6-16	Bq	2.5 Y 3/1			SiC 2 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-1 View Facing Southeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-22-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Bromus Sp.	PG	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5 Y 2/1			SICL 1 msbk
6-16	E	2.5 Y 3/1			SiCL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-2 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-22-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial
I: Introduced N: Native
F: Forb E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-4 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

I: Introduced
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-5 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-22-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial
I: Introduced N: Native
F: Forb E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5 y 2/1			SiCL 1msbk
6-12	E1	2.5y 2/1			SiCL 1 mpl
12-16	E2	2.5 y 3/1		3cp 5YR 4/3	SiL 3 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-6 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+	Salix sp.	S	OBL
Polygonum pensylvanicur	ANEF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native S: Shrub
E: Emergent A: Annual
F: Forb

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-7 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial
I: Introduced N: Native
F: Forb E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y 2/1			SiCL 1 msbk
7-11		2.5Y 2/1			SiCL 2 mpl
11-16		2.5 Y 3/1	2mpl 5YR 4/2		SiL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

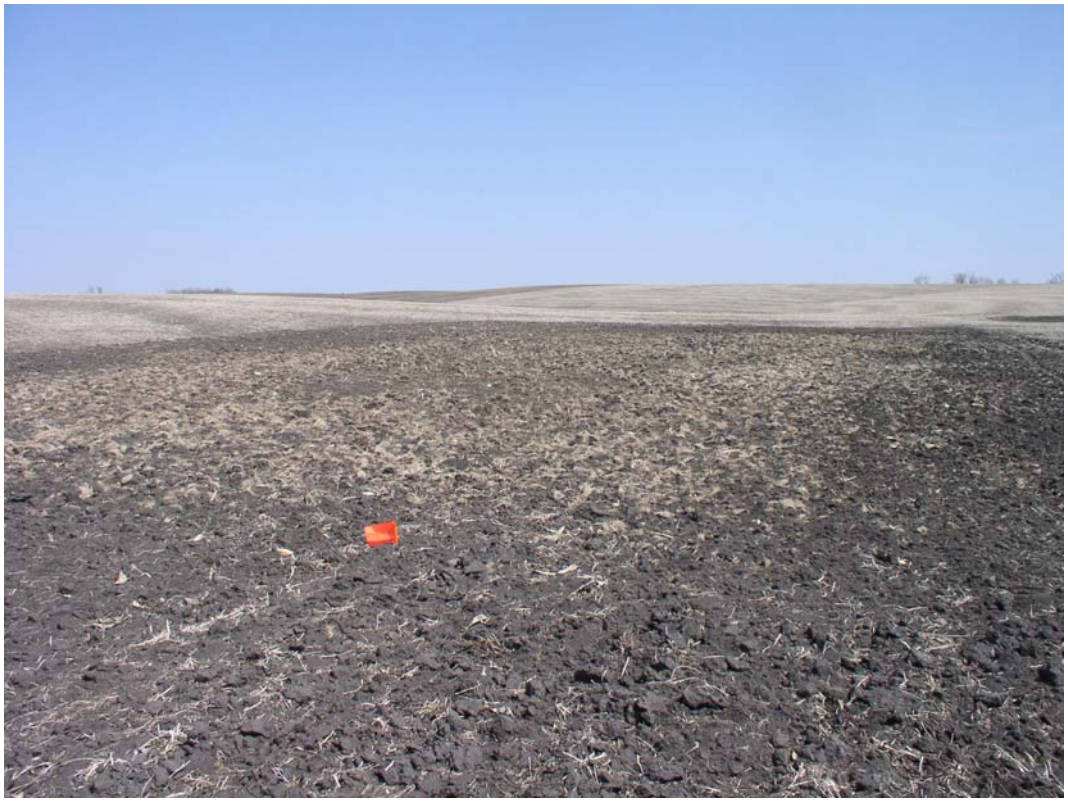
Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



143-22-8 View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-9	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine Max	AIFH	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed field. Vegetation dominated by non-hydrophytes.

P: Perennial F: Forb I: Introduced
N: Native H: Partly Woody
E: Emergent A: Annual

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y 2/1			SiCL 1msbk
7-16	E	2.5Y 3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-9 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-10	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Perimeter of field is farmed.

Vegetation dominated by hydrophytes. Normal circumstances are present.

P: Perennial E: Emergent
N: Native F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y 2.5/1			SiC 1msbk
6-16	Bq	5Y 2.5/1			SiCL 2 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-10 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-22-11	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-22-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Spartina pectinata	PNG	FACW
Phalaris arundinacea	PNG	FACW+			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-22-11 View Facing Southwest 04/29/08

Township 143
Range 57
Section 27

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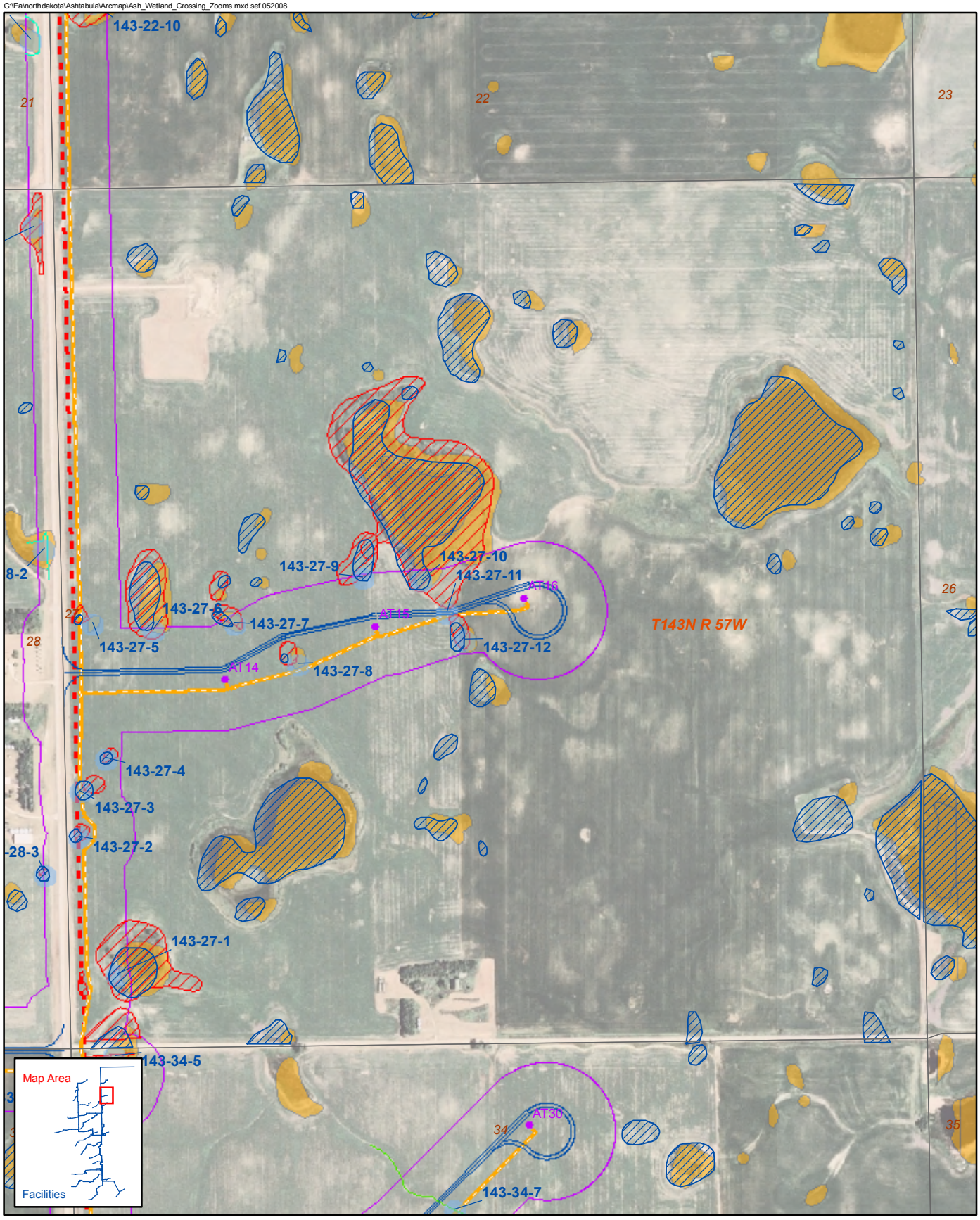

June 26 2008

N
W E
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0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 27

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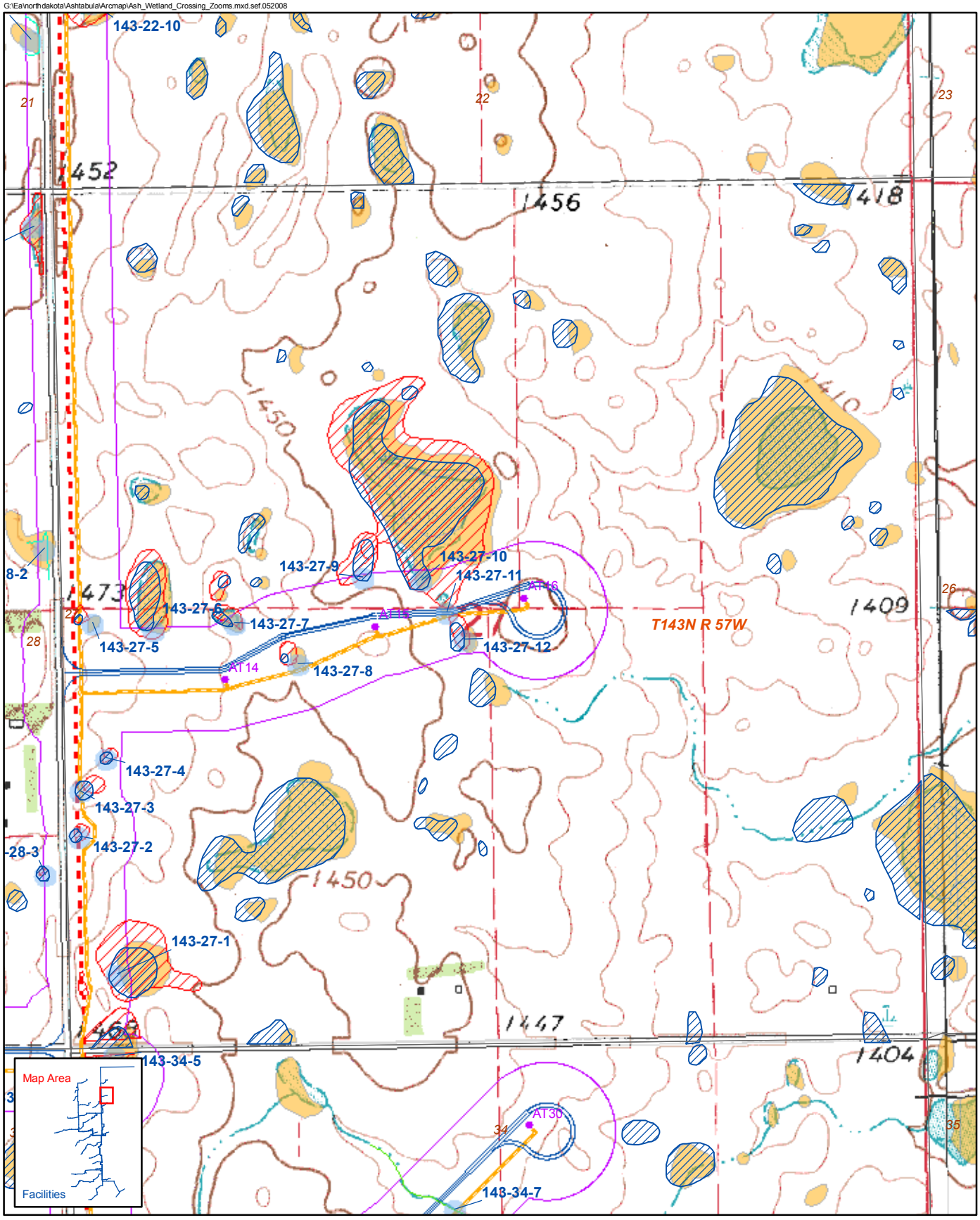

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 27

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-27-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Shrub/Scrub Component

Vegetation dominated by hydrophytes. Normal circumstances are present.

P: Perennial F: Forb
N: Native G: Grass
E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SiCL 2 msbk
6-16	Bq	5 Y 2.5/1			SiCL 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☑ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-1 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-1B	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-1B
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Perimeter of land is farmed.

Vegetation dominated by hydrophytes. Normal circumstances are present.

P: Perennial S: Shrub
N: Native G: Grass
E: Emergent F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-8	A	5 Y 2.5/1			SiCL 1 msbk
8-16	Bq	5 Y 2.5/1			SiCL 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☑ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-1B View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SICL 1 msbk
7-16	E	2.5 Y 3/1			SICL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-2 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-27-3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiCL 1 msbk
7-16	E	2.5 Y 3/1			SiCL 2 mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-3 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-4	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed field. Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiCL 1 msbk
7-16	E	2.5 Y 3/1			SiCL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-4 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiC 1msbk
7-16	E	2.5 Y 3/1			SiC 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-5 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

I: Introduced
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y 2.5 /1			SiCL 1msbk
6-16	Bq	5Y 3/1			SiCL 3 smbk

Hydric Soil Indicators

- ☐ Histosols
- ☑ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-6 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-27-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial
I: Introduced H: Partly Woody
F: Forb

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5 Y 2/1			SiC 1 msbk
6-16	Bq	2.5 Y 3/1	10 YR 4/4		SiC 2 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-7 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-7B	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-7B
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial
I: Introduced F: Forb
H: Partly Woody

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: Page 1.

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil may also contain Typic Calciudolls.

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-7B View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-27-8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5 Y 2/1			SiC 1 msbk
6-16	Bq	2.5 Y 3/1	10 YR 4/4	m3d	SiC 2 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-8 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual

Project/Site :	Ashtabula LLC 143-27-9	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum Sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed wheat field. Vegetation dominated by non-hydrophytes.

G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 2/1			SiCL 2 msbk
6-16	Bq	2.5 Y 3/1			SiC 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-9 View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-10/11	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phalaris arundinacea	PNG	FACW+	Phragmites australis	PNEG	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

I: Introduced
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5 Y 2/1			SiCL 2msbk
6-16	Bq	2.5 Y 3/1			SiC 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-10/11 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-27-12	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Recently farmed bean field. Vegetation dominated by non-hydrophytes.

A: Annual P: Perennial H: Partly Woody
I: Introduced N: Native
F: Forbs E: Emergent

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5 Y 2/1			SiC 1 msbk
6-16	Bq	2.5 Y 3/1			SiC 2 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-12 View Facing South 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-27-13	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-27-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Recently farmed bean field.

Vegetation dominated by non-hydrophytes.

A: Annual F: Forb
I: Introduced H: Partly Woody

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	Poorly to somewhat pc
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-27-13 View Facing North 04/29/08

Township 143
Range 57
Section 28

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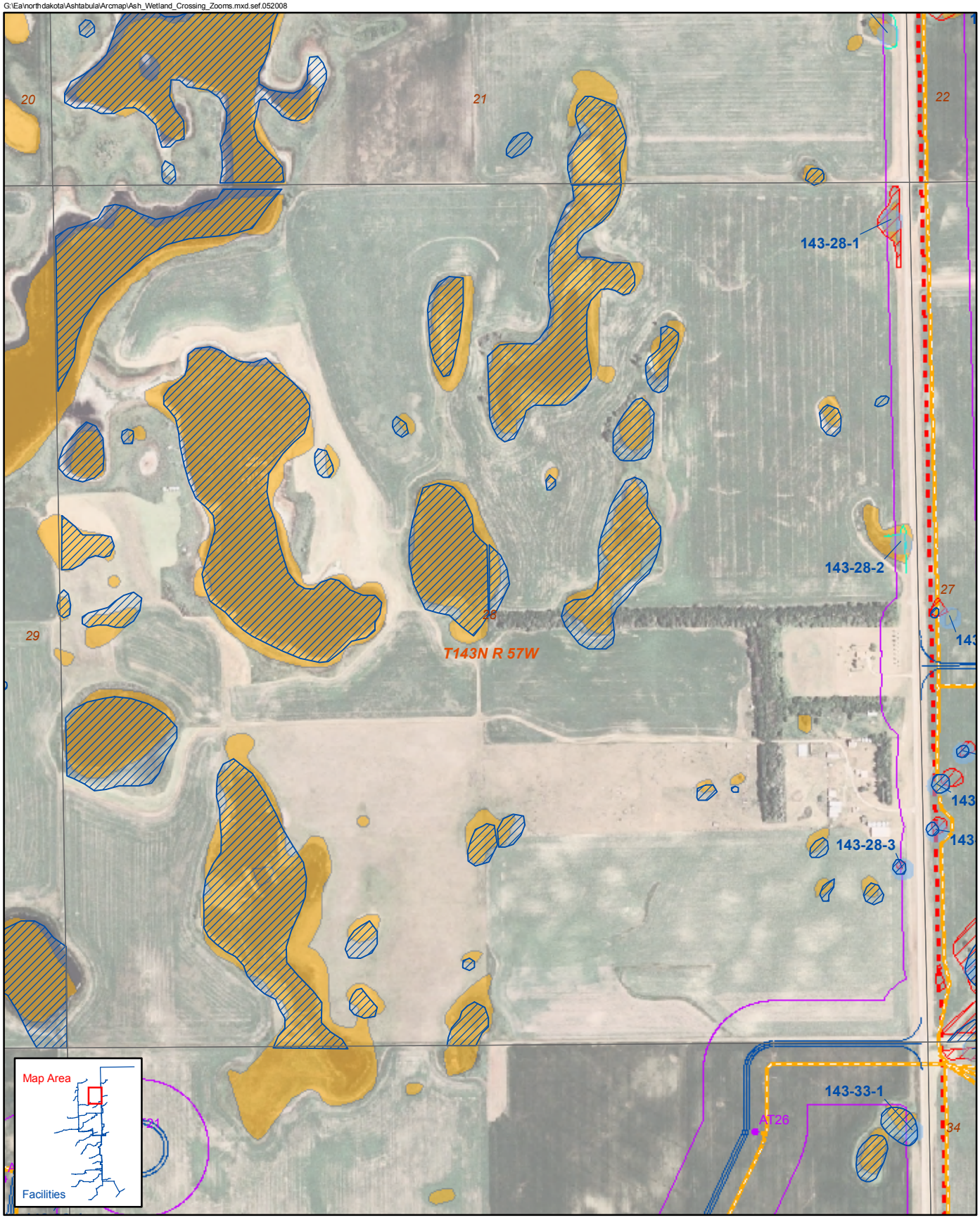

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 28

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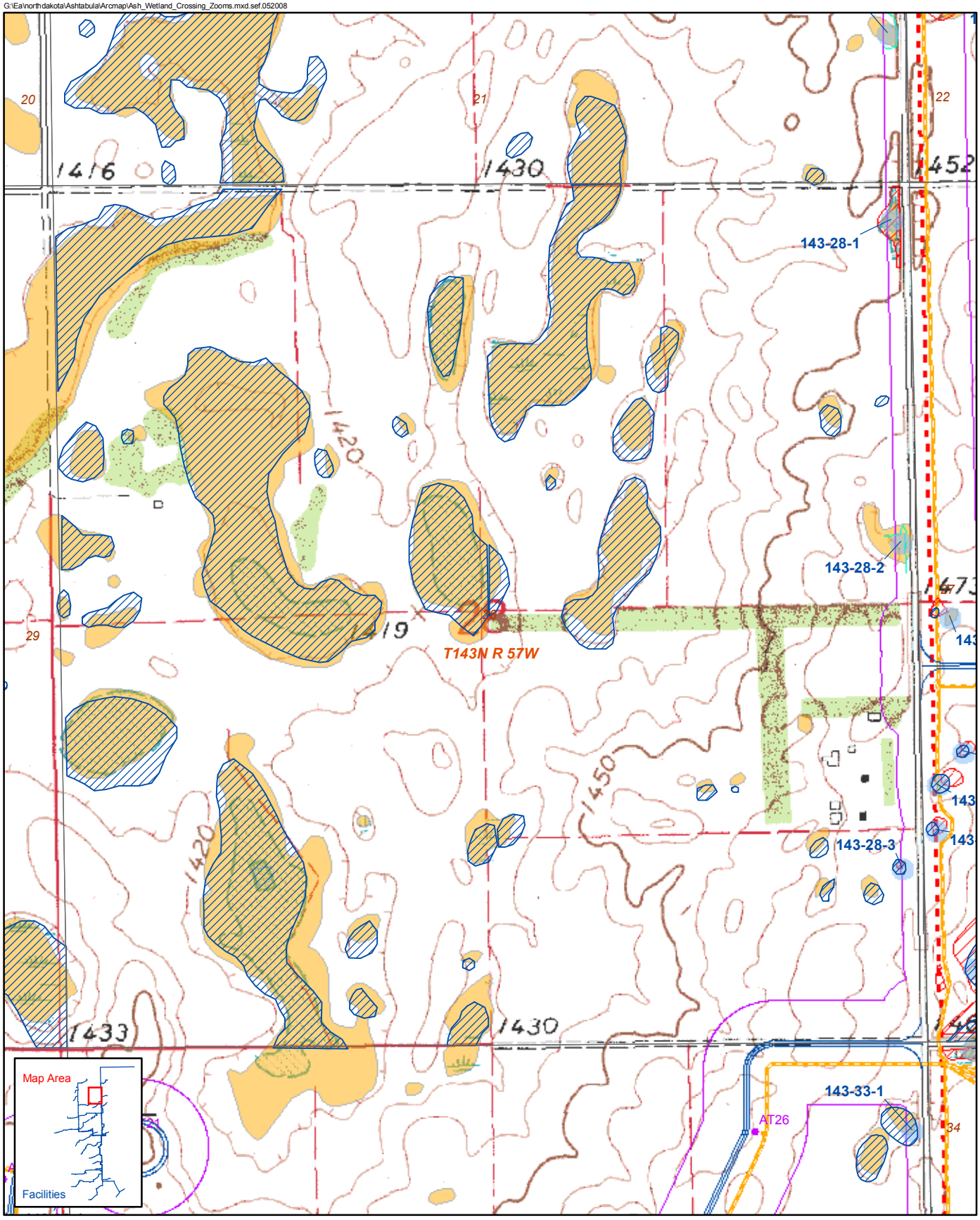

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 28

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-28-1	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-28-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated in reed grass and cattails. Vegetation dominated by hydrophytes.
P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines and inundation indicate the presence of wetland hydrology.
Photo: View looking South.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5y 2.5/1			Sic 2msbk
7-16	Bg	5y 2.5/			sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-28-1 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-28-2 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-28-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native I: Introduced
G: Grass
E: Emergent

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-28-2 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-28-3	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-28-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum SPP.	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate the presence of wetland hydrology.
Photo: View looking South>

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10yr 2/1			SicL 1msbk
7-16	E	2.5y 3/1			SicL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-28-3 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-28-4 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-28-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Site is a swale that runs through a wheat field.

Site 143-28-4 looking NW.

Township 143
Range 57
Section 29

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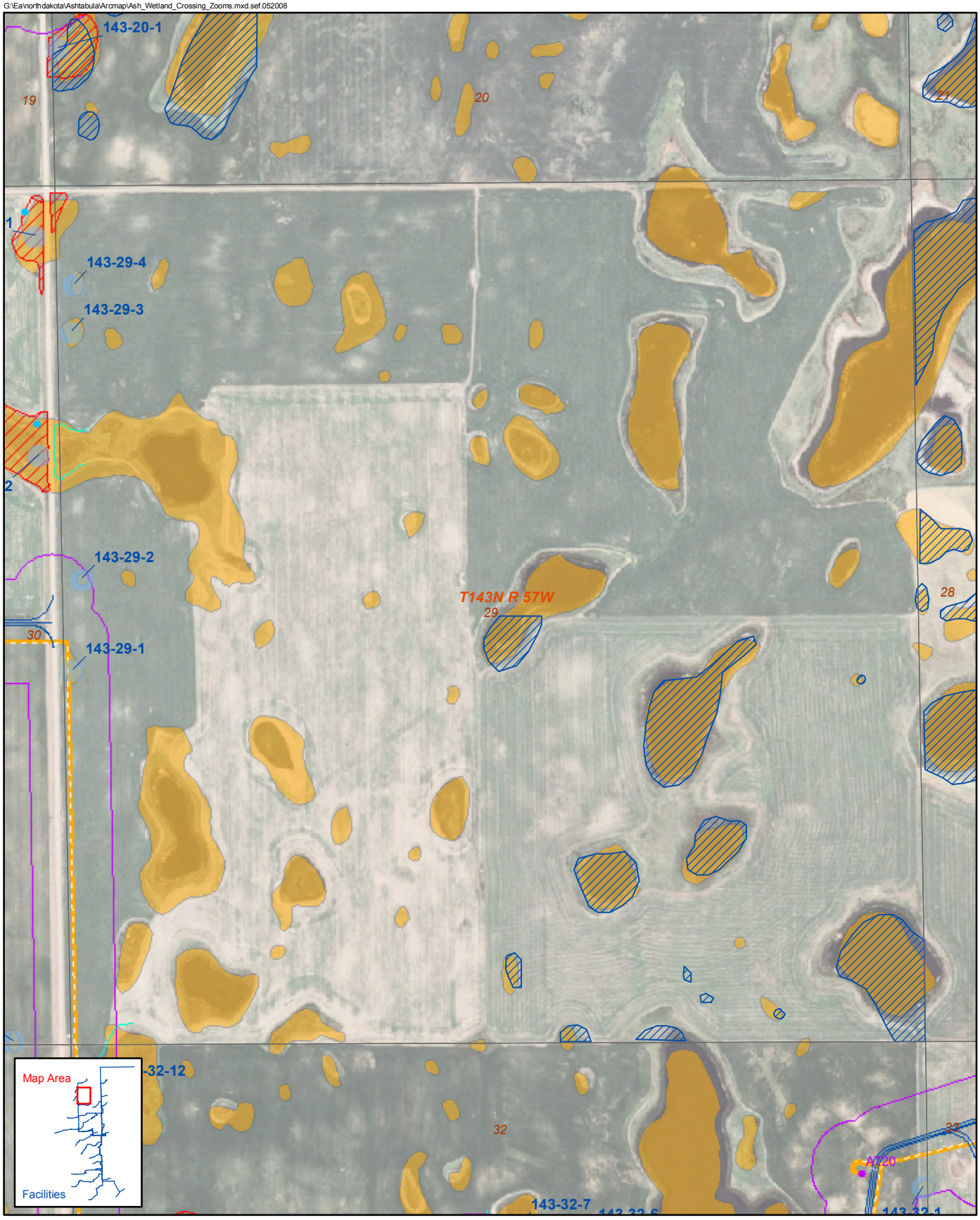

June 26 2008

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TETRA TECH, INC.

- Section
- NWI Wetland Area
- Wetland Easement 3/7/2008
- Crossing Location
- Turbine Location
- Collector Line
- Access Road
- Permanent T-Line
- Temporary T-Line
- Facility Buffer
- Culvert
- Non_wet_
- Wetland_
- Line_gen
- RPW2
- Wetland2
- Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 29

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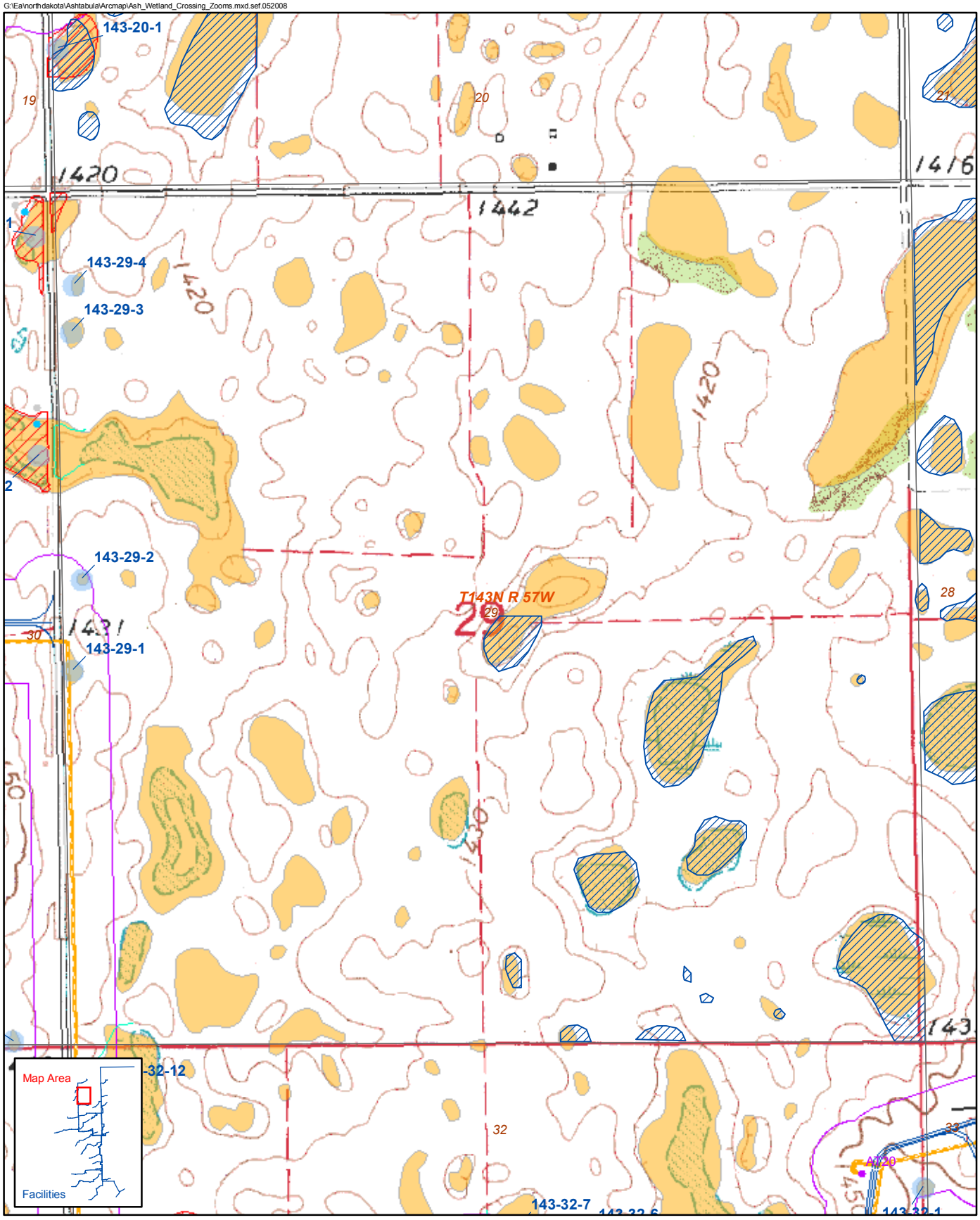

June 26 2008

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Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 29

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-29-1 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-29-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-29-1 looking east.

Site 143-29-2 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-29-3 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-29-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-29-3 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-29-4 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-29-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in corn. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-29-4 looking east.

Township 143
Range 57
Section 30

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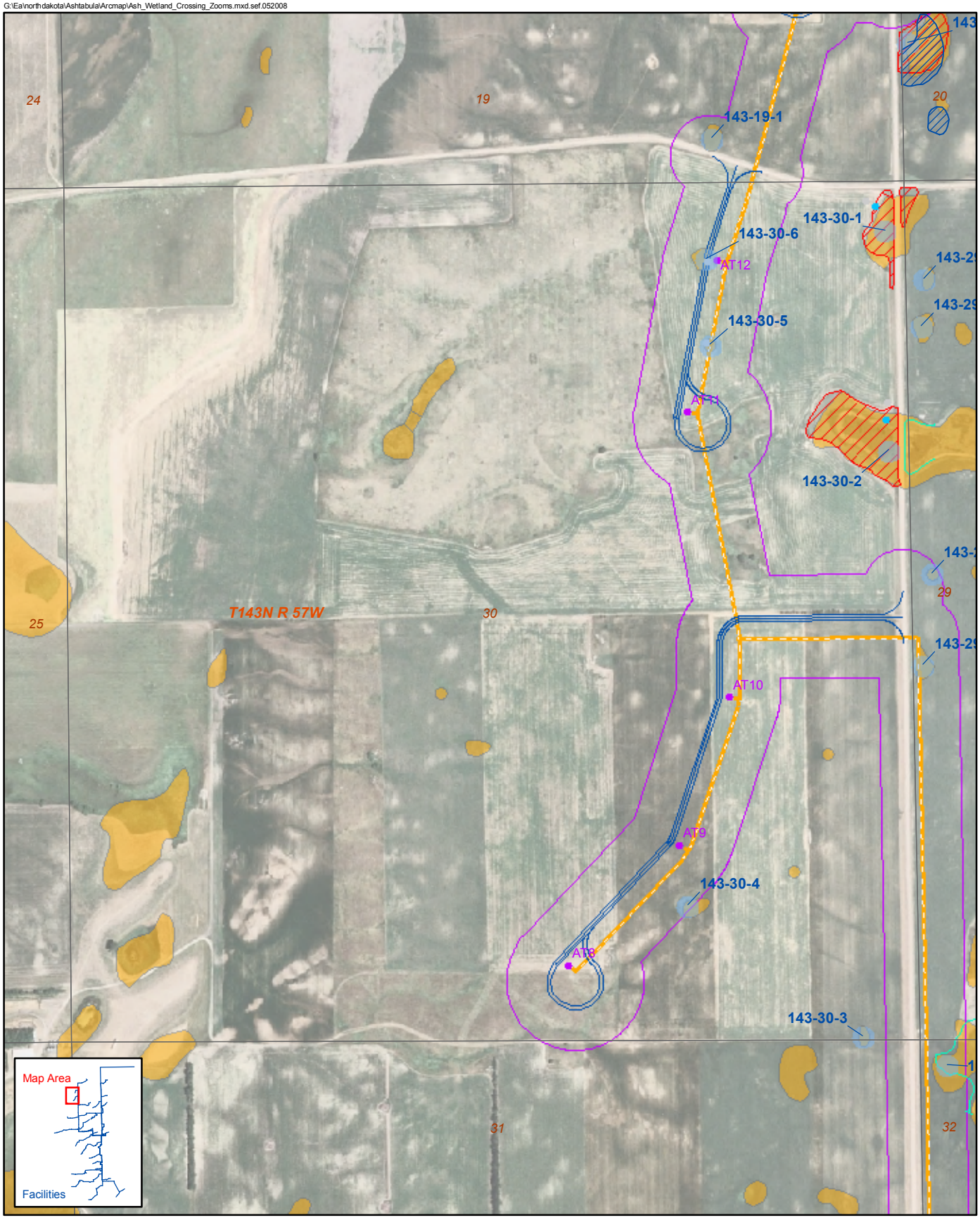

June 26 2008

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1:10,000

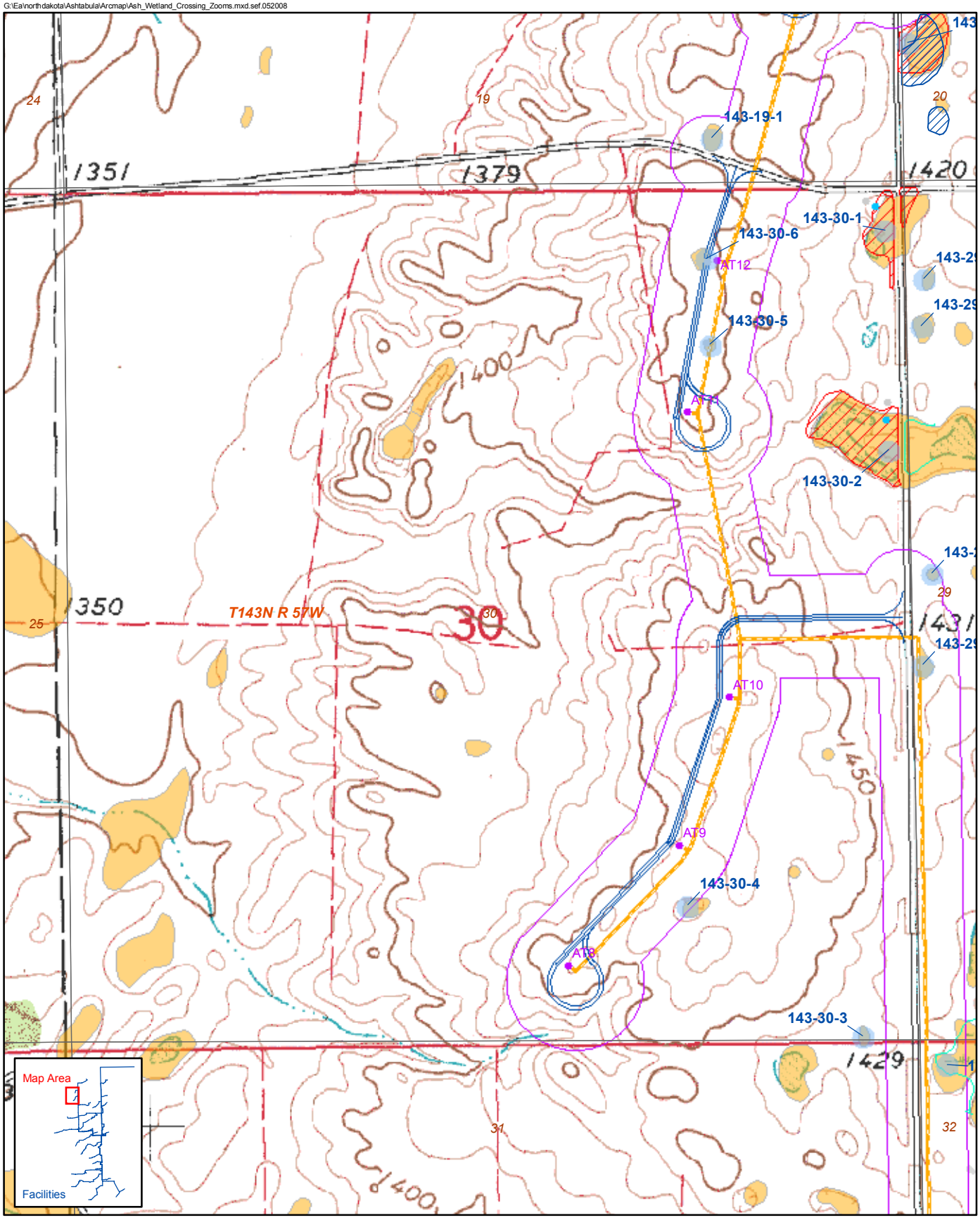
TETRA TECH, INC.

- Section
- NWI Wetland Area
- Wetland Easement 3/7/2008
- Crossing Location
- Turbine Location
- Collector Line
- Access Road
- Permanent T-Line
- Temporary T-Line
- Facility Buffer
- Culvert
- Non_wet_
- Wetland_
- Line_gen
- RPW2
- Wetland2
- Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 30

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 30

TETRA TECH, INC.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-30-1	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated in reed grass, cattail and curly dock. A portion of the wetland area and vegetation have been plowed over.

P: Perennial P: Perennial P: Perennial
N: Native N: Native I: Introduced
G: Grass E: Emergent F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos of site were taken looking Southeast, Northwest, at upland soil and wetland soil.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	5y 2.5/1			Sic 1msbk
6-13	Btg1	5y 3/1			Sic 3msbk
13-16	Btg2	5y 4/2			Sic 1msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-1 looking SE towards upland.

Site 143-30-1 looking NW towards wetland.

Site 143-30-1

Site 143-30-1 upland soil.

site 143-30-1 wetland soil

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-30-2	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☑	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

This site is a productive wetland in terms of vegetation supporting large amounts of reed grass and cattails.

P: Perennial
N: Native
G: Grass

P: Perennial
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

- Depth of Surface Water (inches) : -
- Depth to Saturated Soil (inches) : 2"
- Depth to Free water in Pit (inches) : 9"

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☑ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photos: There are are four photos attached taken of the site looking South, West and of the upland and wetland soils.

(Page 1), (Page 2)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-16	Ag	5y 2.5/			SicL 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☑ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-2 looking south along road.

Site 143-30-2 looking west.
Site 143-30-2

Site 143-30-2 upland soil.

Site 143-30-2 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-30-3 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	AG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-3 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-30-4 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-4 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-30-5 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-5 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-30-6 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-30-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

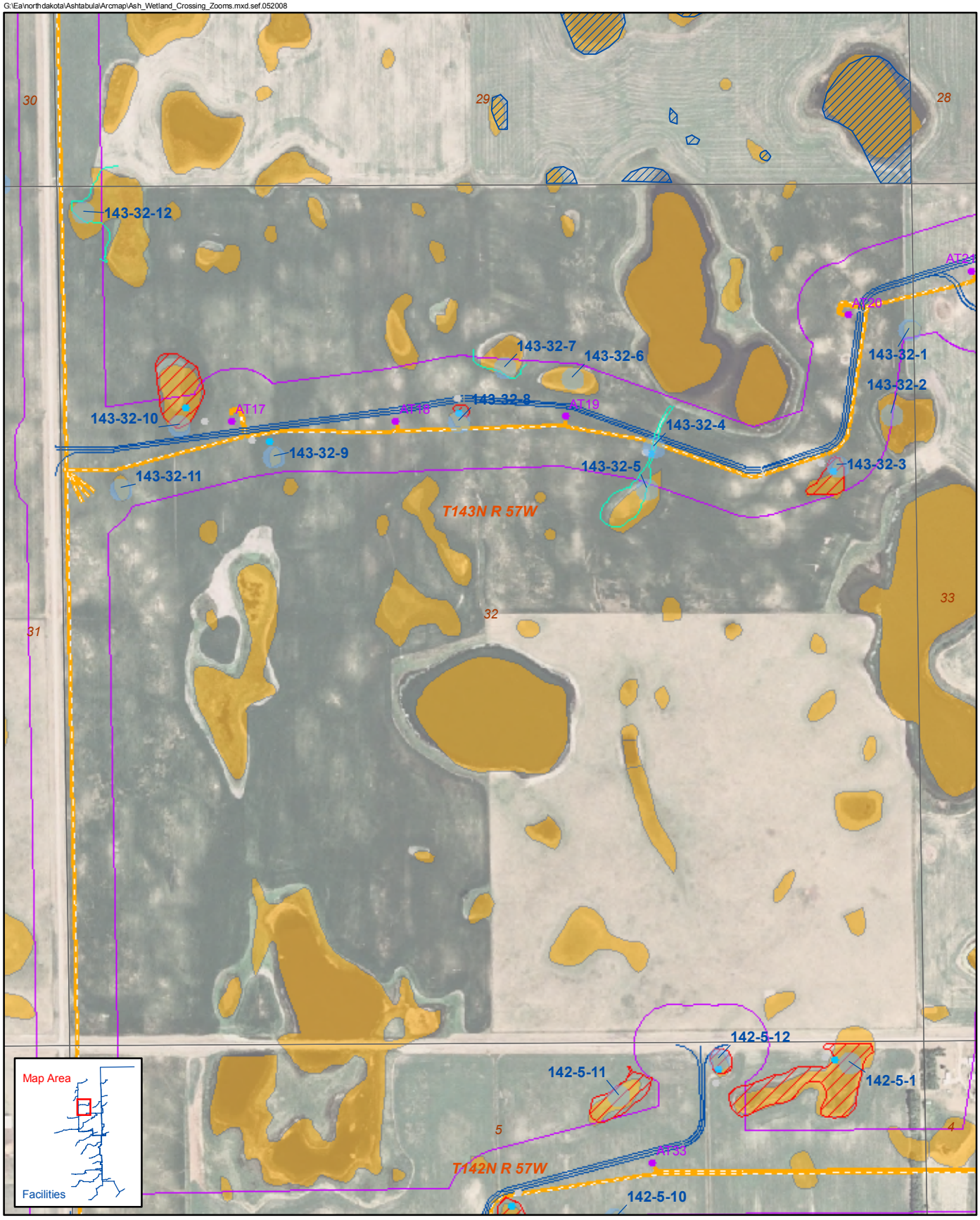
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-30-6 looking north.

Township 143
Range 57
Section 32

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S
0 250 500 1,000 Feet
1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

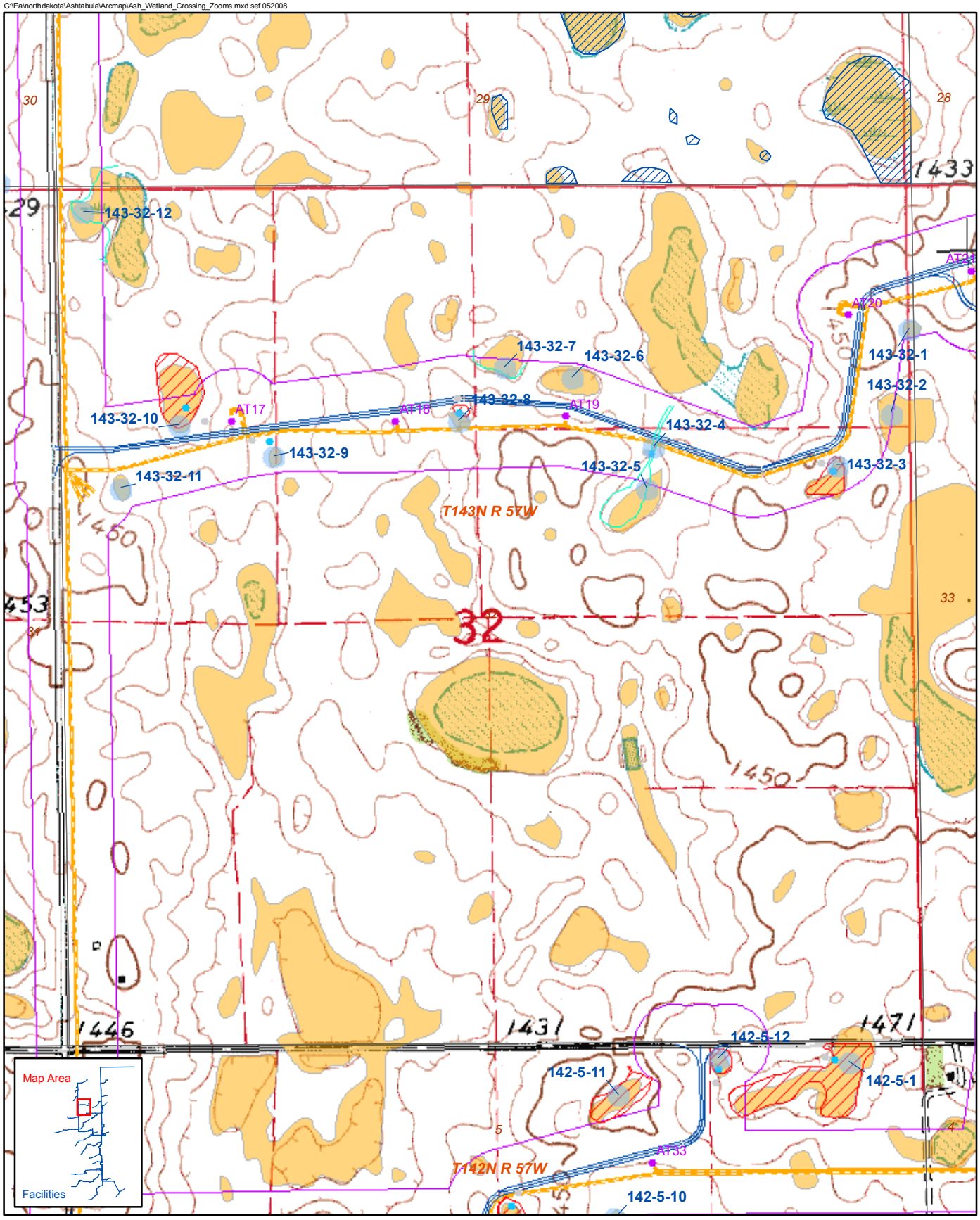
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 32

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 32

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-1 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-1 looking NE.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-2 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-32-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Rumex crispus	PIF	FACW
Typha angustifolia	PNEF	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
I: Introduced

F: Forb
E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-2 looking east.

Site 143-32-2 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-32-3	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☑	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland vegetation has been plowed over however reed grass and cattails could still be identified.

P: Perennial
N: Native
G: Grass

P: Perennial
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Photos: Photos were taken looking South, West, at the upland soils and the wetland soils.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5y 2/1			SicL 1msbk
7-16	E	2.5y 3/1			SicL 2mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-3 looking west.

Site 143-32-3 upland soils.

Site 143-32-3 wetland soils.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-4 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

A: Annual
I: Introduced
F: Forb
H: Partly Woody

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View North (Page 1), View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-4 looking North.

Site 143-32-4 looking south.

Site 143-32-4 upland soils.

Site 143-32-4 wetland soils.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-5 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-32-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial F: Forb
N: Native
G: Grass
E: Emergent

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-5 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-6 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-32-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-6 looking West.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-7 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-32-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial G: Grass
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-7 looking SW.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-32-8	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland vegetation has been plowed over however reed grass can still be identified.
P: Perennial
N: Native
G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: Photos have been taken looking North, South, at upland soils and wetland soils.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5y 2/1			SicL 1msbk
7-16	E	2.5y 3/1			SicL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-8 looking north.

Site 143-32-8 looking south towards uplands.

Site 143-32-8 upland soil.

Site 143-32-8 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-9 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
F: Forb
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-9 looking east towards wetland.

Site 143-32-9 ditch draining wetland.

Site 143-32-9 upland soil.

Site 143-32-9 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-32-10	Date :	04/27/2008
Applicant/Owner :	FPL	County :	barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Hydrophytic vegetation has been plowed over however reed grass and cattails can still be identified.

P: Perennial
N: Native
G: Grass

P: Perennial
N: Native
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :

Wetland area has been plowed through in attempts to evaporate soil moisture so site may be used to farm.
Photo: Photos were taken looking Northwest, Southeast, at upland soils and wetland soils.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA, MAP<16**	Drainage Class :	Poorly
(Series and Phase)	MAAT>42,UNDRAINED	Field Observation	☑
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5y 2/1			SicL 1msbk
6-11	E1	2.5y 3/1			SicL 2mpl
11-16	E2	2.5y 3/1			SicL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-10 looking NW towards wetland.

Site 143-32-10 looking SE towards uplands.

Site 143-32-10 upland soil.

Site 143-32-10 wetland soil.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-11 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-32-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine max	AIFH	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in soy beans. Vegetation dominated by non-hydrophytes.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1).

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-11 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-32-12 MT	Date :	04/27/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-32-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
G: Grass
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☑ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View East (Page 1), View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

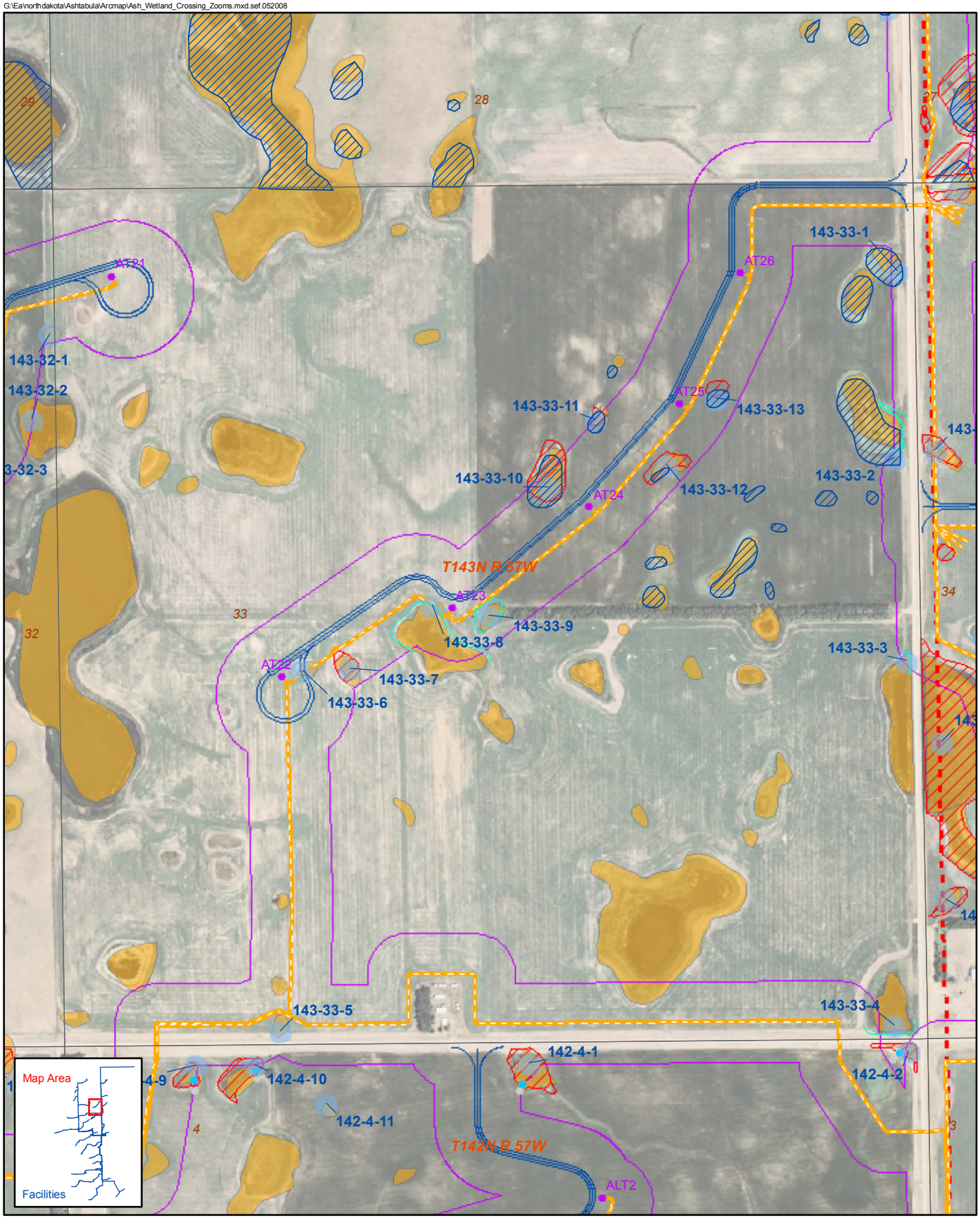
Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-32-12 looking east.

Site 143-32-12 looking north.

Township 143
Range 57
Section 33

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

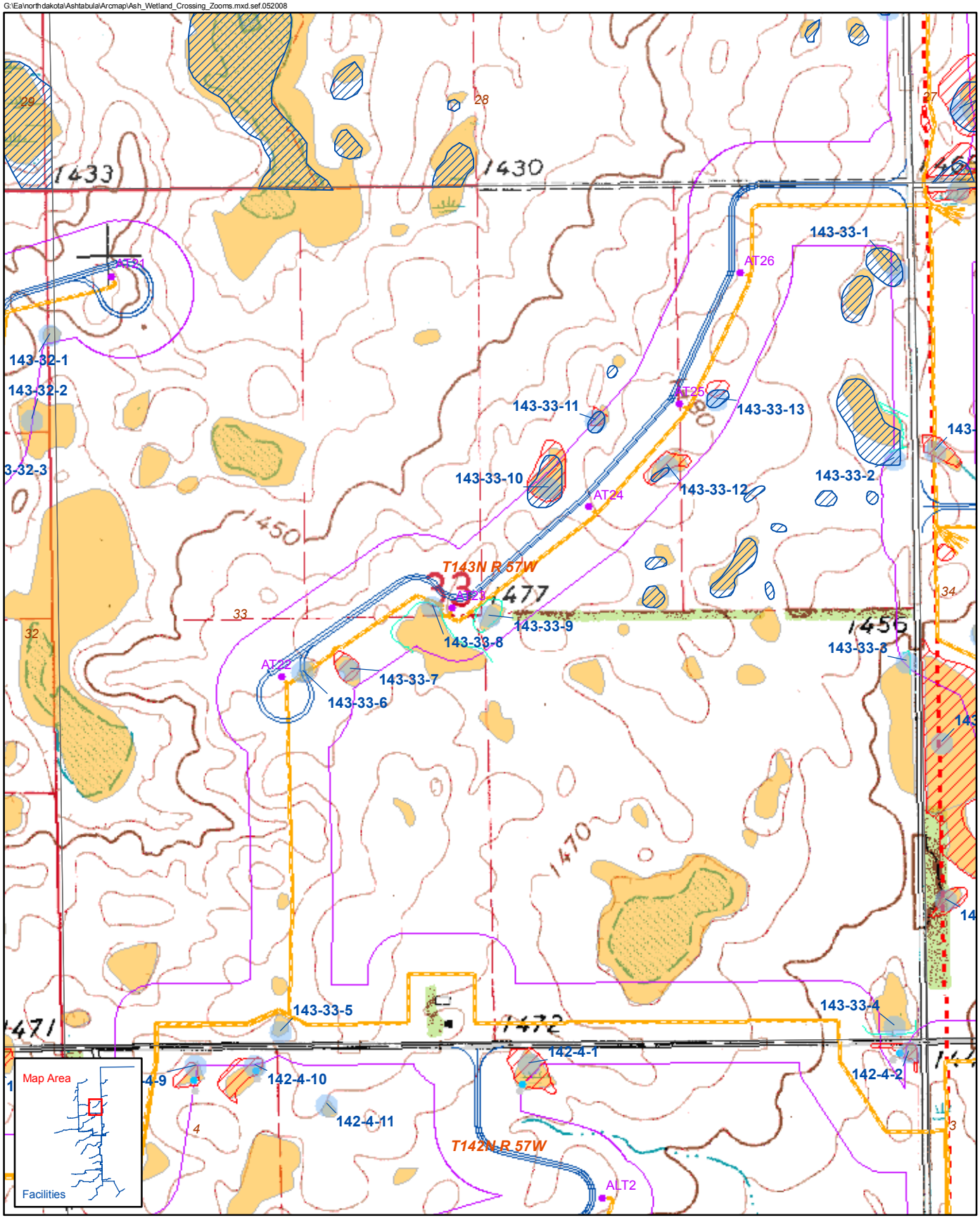
Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 33

G:\Ea\northdakota\Ashtabula\Arcmap\Ash_Wetland_Crossing_Zooms.mxd.sef.052008



June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 33

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-2 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL
Rumex crispus	PIF	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perennial F: Forb
N: Native E: Emergent
G: Grass
I: Introduced

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Southwest (Page 1), View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	well
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 143-33-2 looking SW.

Site 143-33-2 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-3 MT	Date :	04/30/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks : Vegetation dominated by hydrophytes.

P: Perennial
N: Native
E: Emergent
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View South (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. Wetland boundary has been impacted by farming.

Site 143-33-3 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-4 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-4
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Very poorly drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-4 looking NW.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-5 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum sp.	G	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View North (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-5 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-33-6	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☑	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Triticum SPP.	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in wheat.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows no indications of wetland hydrology.
Photo: View looking South.

(Page 1)

Additional Remarks: There is no evidence of wetland hydrology present as the area lacks any primary indicators such as saturation, debris accumulation, sediment deposits, or drainage patterns, and the secondary indicators of water stains, oxidized rhizo's, or the "FAC Neutral" test". The area does not exhibit any evidence such as incised cut, defined bed or bank or ordinary high water mark which would classify this location as a “Water of the United States”.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	2.5y 2/1			Sic 2msbk
6-11	Bg1	2.5y 2/1			Sic 3msbk
11-16	Bg2	2.5y 2/1	10yr 4/4	3md	Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	No		
Hydric Soil Present ?	Yes		

Remarks :

Site is non- wetland.

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-6 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-7 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb

G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View South (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-7 looking south.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-8 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : NA

Depth to Saturated Soil (inches) : NA

Depth to Free water in Pit (inches) : NA

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View Southwest (Page 1), View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-8 looking SW.

Site 143-33-8 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-33-9 MT	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-33-9
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Calamagrostis neglecta	PNG	OBL	Typha angustifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
G: Grass
E: Emergent
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☑ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View East (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-BUSE**	Drainage Class :	Well drained
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-9 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-33-10	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-10
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ?	☑	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Calamagrostis neglecta	PNG	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass, cattails and curly dock.

P: Perennial P: Perennial P: Perennial
N: Native N: Native I: Introduced
G: Grass E: Emergent F: Forb
F: Forb

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows indications of hydrology.
Photo: View North.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL, DEPRESSIONAL**	Drainage Class :	Very poor
(Series and Phase)	UNDRAINED	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	2.5y 2/1			Sic 2msbk
6-16	Bg	5y 2.5/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-10 looking north.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-33-11	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-11
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Calamagrostis neglecta	PNG	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Wetland area is vegetated with reed grass and cattails.
P: Perennial
N: Native
E: Emergent
G: Grass

Vegetation dominated by hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site shows indications of hydrology.
Photo: View East.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	10yr 2/1			Sic 2msbk
6-16	Bg	2.5y 2/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Site has been impacted by farming.

Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-11 looking east.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-33-12	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-12
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☐	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Site has been farmed in soy beans removing any presence of hydrophytic vegetation.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Drift lines indicate the presence of wetland hydrology.
Photo: View looking west.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	Ap	10yr 2/1			Sic 1msbk
6-16	Bg	2.5y 2/1			Sic 2msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-12 looking west.

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
~

Project/Site :	Ashtabula LLC 143-33-13	Date :	04/28/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	RH/RS	State :	North Dakota

Do Normal Circumstances Exist on the Site ?	☐	Community ID :	143-33-13
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ?	☑	Plot ID:	A
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Wetland area has been plowed through and farmed removing any presence of hydrophytic vegetation. Site has been farmed in soy beans.
A: Annual
I: Introduced
G: Grass

Vegetation dominated by non-hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

O No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : -

Depth to Saturated Soil (inches) : -

Depth to Free water in Pit (inches) : -

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☐ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Site does show indications of hydrology.
Photo: View looking Northwest.

(Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10yr 2/1			Sic 1msbk
7-16	Bg	2.5y 2/1			Sic 3msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

Site 143-33-13 looking NW.

Township 143
Range 57
Section 34

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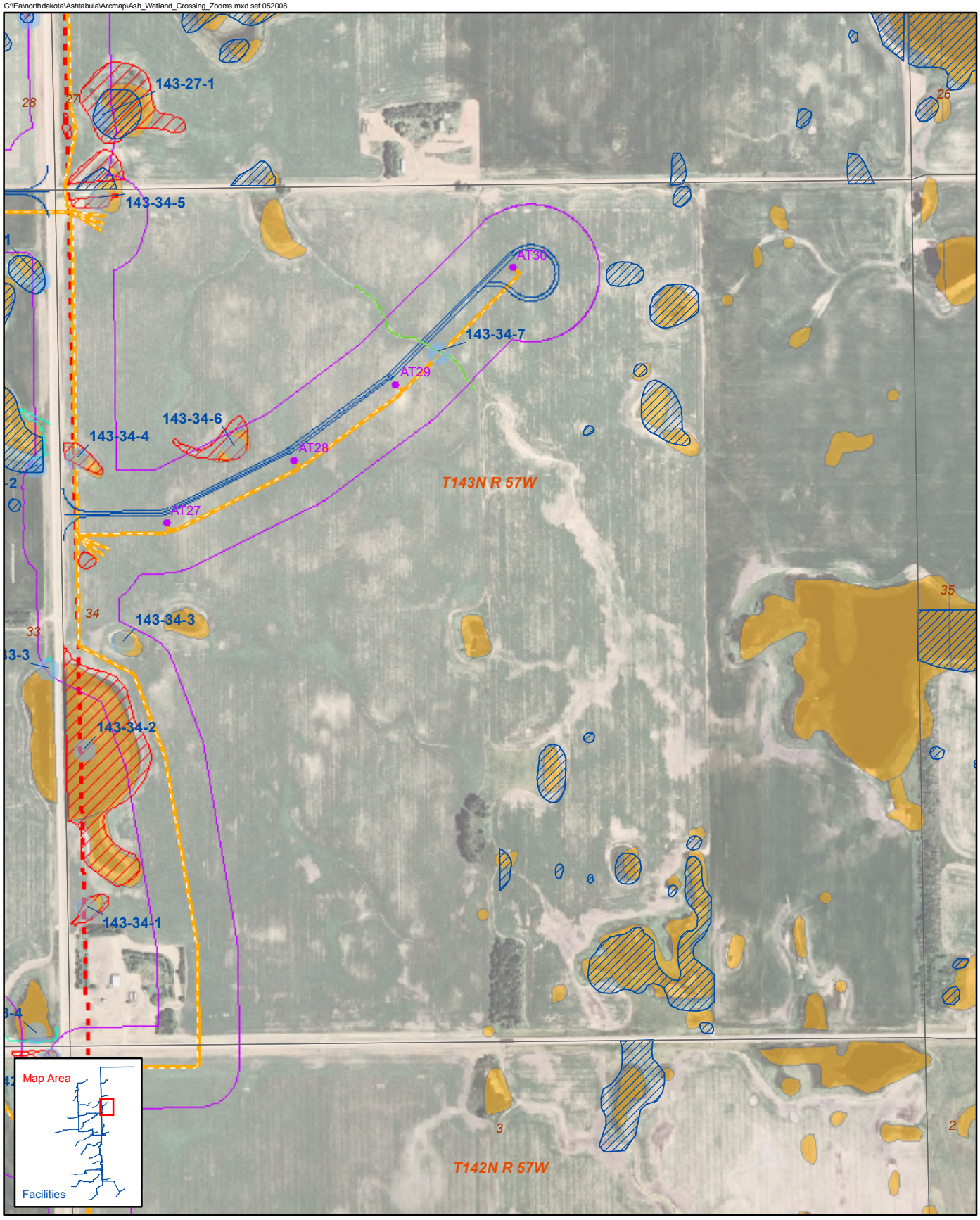

June 26 2008

N
W E
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0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 34

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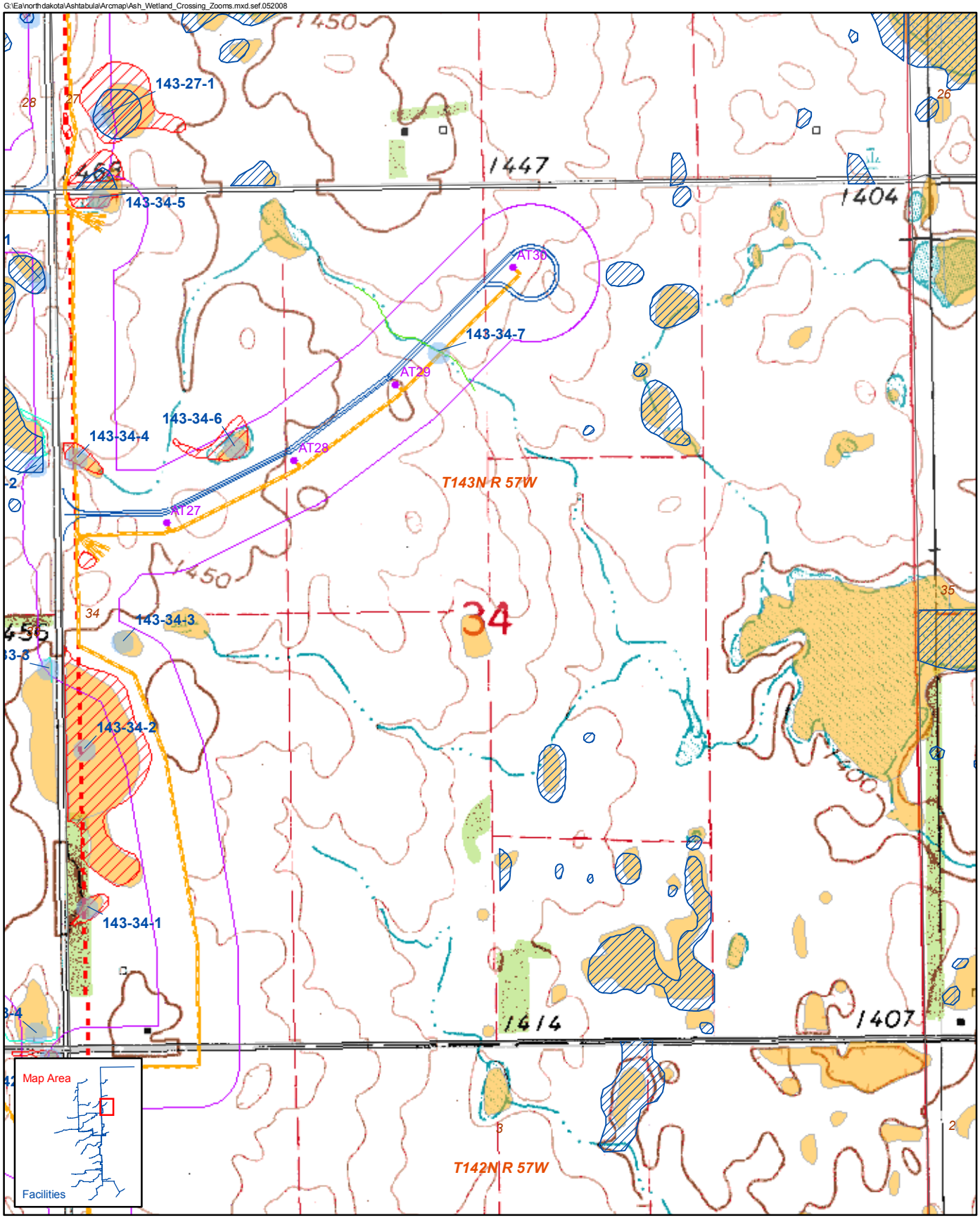

June 26 2008

N
W E
S

0 250 500 1,000 Feet

1:10,000

Section
NWI Wetland Area
Wetland Easement 3/7/2008

Crossing Location
Turbine Location
Collector Line
Access Road
Permanent T-Line
Temporary T-Line
Facility Buffer

Culvert
Non_wet_
Wetland_
Line_gen
RPW2
Wetland2
Wetland3a

TETRA TECH, INC.

Crossing Locations
Ashtabula Windfarm
Barnes County, North Dakota

Township 143
Section 34

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-1	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-1
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI	Typha latifolia	PNEF	OBL

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

A: Annual
E: Emergent
I: Introduced
F: Forb
G: Grass
Area Recently Farmed
P: Perennial
N: Native

Vegetation dominated by non-hydrophytes.

HYDROLOGY

⊙ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View East (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**HAMERLY-TONKA**	Drainage Class :	somewhat poorly to po
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-1 View Facing East 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-2	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-2
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
G: Grass

I: Introduced

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) :

Depth to Saturated Soil (inches) :

Depth to Free water in Pit (inches) :

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**SOUTHAM**	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	CUMULIC VERTIC ENDOAC	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-2 View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-3	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-3
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phragmites australis	PNEG	FACW			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

P: Perennial
N: Native
E: Emergent
F: Forb
I: Introduced
G: Grass

Vegetation dominated by hydrophytes. Normal circumstances are present.

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :
- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Northeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SiCL 2 msbk
6-16	Bq	5 Y 2.5/1			SiC 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks

Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-3 View Facing Northeast 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
1987 COE Wetlands Delineation Manual
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Project/Site :	Ashtabula LLC 143-34-5	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-5
Is the Site Significantly Disturbed (Atypical Situation) ?	☐	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 100.00%

Remarks :

Vegetation dominated by hydrophytes.

P: Perinnial G: Grass
N: Native S: Shrub
E: Emergent
F: Forb

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photo: View West (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☐
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SIC 1 msbk
6-16	Bq	5 Y 2.5/1			SIC 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-5 View Facing West 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-6	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-6
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass
Area Recently Farmed

HYDROLOGY

- ⊙ Recorded Data(Describe in Remarks)
  - ☐ Stream, Lake or Tide Gauge
  - ☑ Aerial Photographs
  - ☐ Other
- ○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View North (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**PARNELL**	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	☑
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	5 Y 2.5/1			SIC 1msbk
7-16	Bq	5 Y 2.5/1	3 CP 2.5 Y 4/4		SiC 3 msbk

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected. Soils may also contain Pachic Hapludolls.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-6 View Facing North 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-7	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GD/ME	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-7
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :

Vegetation dominated by non-hydrophytes.

Field drainage which has been farmed through.
A: Annual
I: Introduced
G: Grass

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☑ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos: View Northwest (Page 1).

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**BARNES-SVEA**	Drainage Class :	well or moderately wel
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	CALCIC HAPLUDOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-7 View Facing Northwest 04/29/08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site :	Ashtabula LLC 143-34-8	Date :	04/29/2008
Applicant/Owner :	FPL	County :	Barnes
Investigator :	GCD/MRE	State :	North Dakota
Do Normal Circumstances Exist on the Site ?	☑	Community ID :	143-34-8
Is the Site Significantly Disturbed (Atypical Situation) ?	☑	Transect ID :	T1
Is the Area a Potential Problem Area ? (If needed, explain on reverse.)	☐	Plot ID:	A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Zea mays	AIG	NI			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks : Vegetation dominated by non-hydrophytes.

A: Annual
I: Introduced
G: Grass
Area Recently Farmed

HYDROLOGY

◉ Recorded Data(Describe in Remarks)

- ☐ Stream, Lake or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

○ No Recorded Data Available

Field Observations

Depth of Surface Water (inches) : 0

Depth to Saturated Soil (inches) : >12

Depth to Free water in Pit (inches) : >12

Wetland Hydrology Indicators

Primary Indicators :

- ☐ Inundated
- ☐ Saturated In Upper 12 Inches
- ☑ Water Marks
- ☑ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain In Remarks)

Remarks :
Photos:
View Southeast (Page 1)

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	**TONKA**	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	☐
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :

Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	10YR3/1			SiCL 1msbk
7-13	E1	2.5Y3/1			SiCL 3fpl
13-16	E2	2.5Y4/3			SiCL 3mpl

Hydric Soil Indicators

- ☐ Histosols
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☑ Aquic Moisture Regime
- ☑ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☑ Listed on local Hydric Soils List
- ☑ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

WETLAND DETERMINATION

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.

143-34-8 View Facing Southeast 04/29/08