ATTACHMENT 1

Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan

Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan

ITC Lake Erie Connector, LLC (ITC), through its contractors, will implement a Drilling Fluid Monitoring and Operations Plan (Plan) during all Horizontal Directional Drilling (HDD) operations associated with installation of the Lake Erie Connector Project (LEC).

In any fluid based drilling operation there is a chance of inadvertent release of drilling fluids, typically due to weak spots in the soils allowing migration of the fluids to the surface.

The purpose of this plan is to quickly identify any inadvertent fluid releases and then contain, minimize, and remediate any environmental impacts associated with any normal or inadvertent release of HDD drilling fluids.

This plan is currently a template setting forth the minimum requirements for site-specific plans that will be prepared by HDD drilling contractor(s) once such contractor(s) have been selected and engaged. Copies of the final site-specific inadvertent return plan for each site will be provided to the relevant regulatory agencies before the commencement of drilling activities at each site.

1.0 **Project Summary**

The Lake Erie Connector Project consists of installation of a High Voltage Direct Current (HVDC) cable system in Lake Erie and lands on each side of Lake Erie between the Nanticoke Transformer Station in Ontario, Canada and Erie West Substation in Erie County, Pennsylvania, USA. The project includes multiple areas where the underground cable conduits will be installed by HDD. Three main types of areas are involved, where significantly different equipment and procedures will be used: (1) the Lake Erie shoreline area (where HDD borings will be installed to transition the cables from the top of the bluff to a point in the off-shore bedrock bed of Lake Erie; (2) crossings under certain streams; and (3) crossings to avoid certain surface obstacles. The procedures for monitoring and on site contingency measures will be different for each type based on potential risk of environmental impacts.

1.1 Lake Erie Shoreline Crossings

In order to minimize disturbance in the shoreline and shallow water areas of Lake Erie, ITC intends to install conduits for the cable by HDD. The shoreline crossings will be approximately 750 m (2,500 ft) long, extending approximately 600 m (2,000 ft) into the water. Each shoreline

crossing will consist of 3 parallel bore holes, separated by approximately 10 m (33 ft). A single high density polyethylene (HDPE) pipe with an outside diameter of 250 to 350 mm (10 to 14 inches) will be installed in each borehole to act as a casing.

1.2 Waterway Crossings

No additional waterway crossings are expected in Ontario.

HDD used for stream crossings will be much shorter than Lake Erie shoreline crossing, generally involving borings less than 150 m (500 ft) long. Each HDD stream crossing will consist of three parallel bores, separated by a minimum of 5 m (15 ft). A single high density polyethylene (HDPE) pipe with an outside diameter of 200 to 300 mm (8 to 12 inches) will be installed in each borehole to act as a casing.

1.3 Surface Obstacle Crossings

No additional HDD installations are expected in Ontario. Surface obstacles such as railroads are expected to be crossed by cased auger boring (Jack & Bore).

Certain surface obstacles in Pennsylvania, such as high traffic roadways, railroads, and ephemeral waterways, may be crossed by HDD or Jack & Bore. Where HDD is used the crossings will be less than 150 m (500 ft) long. Each crossing will consist of three parallel bores, separated by approximately 5 m (15 ft). A single high density polyethylene (HDPE) pipe with an outside diameter of 200 to 300 mm (8 to 12 inches) will be installed in each borehole to act as a casing.

2.0 Drilling Fluid

In HDD installations, drilling fluid is used to remove cuttings and spoils from the borehole, maintain the integrity of the hole, and lubricate and cool the drill bit.

Drilling fluid is mostly water with addition of naturally occurring clay called sodium montmorillinite (bentonite). Bentonite is a non-toxic, non-reactive material that allows the HDD contractor to monitor and adjust the viscosity of the drilling fluid to achieve the desired carrying, and lubricating properties.

2.1 Additives

Additives to adjust the viscosity, improve hole integrity, prevent, or reduce fluid release may be added to the drilling fluid as required during the drilling operations. These additives may include clays, organic fibers, modified starches and non-reactive polymers. No petroleum based additives will be used. All potential additives will be identified in the final inadvertent return

plan for each site, and Material Safety Data Sheets for all additives will be provided in each sitespecific inadvertent return plan.

No other materials will be included in the drilling mud without prior approval of the relevant environmental agencies.

2.2 Disposal

Drilling fluid is circulated continuously through-out the drilling process with the cuttings and spoils from the drilling operation removed in order to reuse and recycle the drilling fluid. Prior to drilling operations, the HDD contractor will identify qualified disposal at a landfill or off-site facility for disposal of the cuttings, spoils and excess drilling fluid.

Depending on permitting requirements, filtered and purified water may be disposed of on site with an approved discharge and other related environmental permits.

3.0 Design Considerations

ITC and its consultants have been and will be undertaking several steps during design to minimize the chances of an inadvertent release of drilling fluid.

3.1 Identify Soil and Subsurface Conditions

ITC and its consultants will undertake geotechnical investigations to identify the materials being drilled through, resistance to drilling operations and resistance to fluid migration.

3.2 Drill Design

ITC, through its design contractor, will prepare detailed design calculations and plans identifying the drill path, expected volumes, pipe installation stresses and pressures of fluid.

3.3 Additional Modeling for Lake Erie Shoreline Crossing

For the longer HDD borings crossing the Lake Erie shoreline, the drilling fluid will need to circulate at a higher pressure. For these areas site specific modeling will be performed to estimate the ability of the soils to withstand fluid migration (Hydrofracture Modeling). These models will be used in conjunction with the expected fluid pressures to confirm the drill installation depth.

4.0 Monitoring and Operations Plan

The Monitoring and Operations Plan is broken into the following conditions with corresponding monitoring and operational actions:

Table 4-1

Drilling Fluid Monitoring and Operations Plan Summary

Condition	Status	Actions
Condition 1: Normal Drilling Conditions	Normal drilling fluid circulation is maintained.	 Perform routine collection of drilling fluid at endpoints Perform routine drilling data collection Conduct routine visual monitoring for surface releases.
Condition 2: Loss or Reduction of Circulation	Loss, or significant reduction, of fluid circulation.	 Notify regulatory agencies Adjust drilling parameters in an effort to regain circulation Increased visual monitoring for surface release Continue drilling if no release is detected
Condition 3: Drilling Fluid Release and Remediation	Drilling fluid release is confirmed.	 Notify regulatory agencies Monitor and document release area Contain and collect release if feasible Suspend HDD operations if containment is not feasible

4.1 Condition 1: Normal Drilling Conditions

The HDD Contractor will maximize recirculation of drilling fluid surface returns and provide solids control and fluid cleaning equipment of a configuration and capacity that can process surface returns and produce drilling fluid suitable for reuse.

ITC's Contractor will at all times provide and maintain instrumentation which will accurately locate the pilot hole, measure drill string axial and torsional loads, and measure drilling fluid discharge rate and pressure.

Representatives of regulatory agencies, including the Pennsylvania Department of Environmental Protection, will be provided access to these instruments and records of measurements upon request. A log of all recorded monitored information will be maintained at the drill rig site and will become a part of the construction record.

Routine visual monitoring under Condition 1 will consist of periodic visual inspections by the HDD Contractor personnel at least every 4 hours along the drilled alignment. For the Lake Erie shoreline crossings, inspection will be carried out on foot on land and by boat in the water. For the high quality waterway and surface obstacle crossings inspections will be made on foot.

The name of the inspector, time of the examination, and observations will be kept in a log at the drill rig site and will be available for inspection.

4.2 Condition 2: Loss or Reduction of Circulation

Condition 2 procedures will be implemented if the drilling fluid fails to circulate as expected. Drilling fluid circulation will be evaluated on the basis of comparing actual quantities against the planned quantities for the volume of fluid being recovered, drilling fluid pressures, and location of fluid recovered.

Complete recovery of all circulating drilling fluids is not expected. Soil naturally includes voids and low density areas. A portion of the fluid will fill the voids in the soils and sediments immediately adjacent to the borehole during the drilling process. An approximate amount of fluid that will be absorbed before Condition 2 begins will be estimated as part of the detailed design.

The following procedures will be implemented if a loss or significant reduction of drilling fluid circulation occurs.

- HDD Contractor will notify the Pennsylvania Department of Environmental Protection ("PaDEP") of the occurrence of Condition 2, and will advise PaDEP whether or not drilling is continuing under Condition 2.
- HDD Contractor will increase monitoring frequency from Routine to Focused monitoring. Focused monitoring consists of continuous monitoring of the drill alignment by personnel, who shall have no other duties. Sufficient personnel will be used to ensure that each portion of the alignment is inspected at least once every 30 minutes.

- HDD Contractor will immediately take steps to restore circulation. These steps will include, but not be limited to, the following:
 - Size the hole. Sizing (swabbing) involves withdrawing the drill string to mechanically clean the drilled hole.
 - Adjust drilling fluid viscosity and gelling properties to encourage annular flow and stabilize the hole structure.
 - HDD Contractor may elect to attempt the following adjustments in addition to the above steps.
 - Adding additional pre-approved filling or stabilizing materials to potentially seal fissures in the soil.
 - Adjust the drill cutting heads and speeds for potential soil pockets.

Once circulation is restored, drilling will continue under Condition 2 for a period of not less than eight (8) drilling hours. If a release is not identified, and loss or significant reduction of drilling fluid circulation does not re-occur, the HDD Contractor will notify regulatory agency representatives that drilling under Condition 1 has resumed.

HDD Contractor will keep PaDEP and other regulatory agency representatives notified on changes to circulation status, including if circulation has been restored or partially restored.

4.3 Condition 3: Drilling Fluid Release, Containment and Remediation

This section covers the general principles for Condition 3 and drilling fluid containment. More detailed information is included in Section 5. If a drilling fluid release is detected the following procedures will be implemented.

- HDD Contractor will immediately notify PaDEP_that a fluid release has been detected.
- HDD Contractor will immediately begin containment efforts. See Section 5.0 for discussion of containment methods and equipment.
- HDD Contractor will begin steps to reduce released fluid volumes and pressures.
 - Size and swab the bore hole
 - Adjust drilling fluid viscosity and gel properties to restore circulation

- Adding additional pre-approved filling or stabilizing materials to potentially seal fissures in the soil.
- Once containment has been established drilling will continue under condition 3. If the amount of the release occurring exceeds that which can be contained and collected drilling operations will be suspended until released volumes can be brought under control.
- Continue Focused Monitoring to ensure additional fluid releases have not occurred.

If the amount of any drilling fluid release, either on land or within the lake, exceeds that which can be feasibly contained and collected, drilling operations will be suspended and the HDD Contractor will notify ITC and PaDEP. Drilling will not resume until ITC and PaDEP have approved a plan for recommencing drilling.

Drilling fluid returns may stop as the drilling fluid consistency changes. If drilling fluid stops returning, the surface containment measures will be maintained in place and drilling will continue under Condition 2.

HDD Contractor will keep PaDEP and other regulatory agency representatives notified on changes to status, including if circulation has been restored, additional releases and containment status.

5.0 Containment Methods and Equipment

Containment methods and equipment will be based on the potential locations of the release and potential volume of fluid.

The plans below lay out basic principles. These plans will be refined by the HDD contractor considering the contractor's available equipment and the conditions and requirements for each individual site. The equipment required to execute the plan will be maintained on site during all drilling activities.

5.1 Lake Erie Shoreline crossing, in water

Drilling fluid is heavier than water and typical released at low velocities. This means that the easiest way to contain the fluid is to place barriers around the release location creating a sump around the release location and pump the fluid out of the sump.

Due to the depth of the water expected over the HDD alignment it is expected that a response boat with a diver on board will be required during all drilling activities.

Containment and capture of fluid already dispersed into the lake water is not practical and will not be attempted.

Specific barriers and equipment will be identified by the HDD contractor for the Lake Erie shoreline crossing.

5.2 Shoreline crossing, on land

As only a small amount of the alignment is on land for the shoreline crossing the spill prevention materials that will be kept at the drill site.

Containment on land will be by construction of a sump by excavating a pit approximately 6 foot square at the location of the release and pumping the contained fluid into the fluid circulation system.

The fluid released before containment was established will be contained with temporary barriers such as sand bags and then swept back into the containment sump or contained in low areas and vacuumed into holding tanks.

Specific barriers and equipment will be identified by the HDD contractor once contracted.

5.3 Waterway, in water

The waterways in the area are shallow enough to be waded across. Inspections will be from shore and on foot. Containment in water will be by constructing a small sump by installing barriers downstream from the release and pumping the fluid into the fluid circulation system. For smaller releases, a vacuum truck hose may be used to collect released fluids if the vacuum truck is able to keep up with the rate of release.

Containment and capture of drilling fluid will begin immediately on detection of fluid release using equipment including filter tubes and sediment traps pre-staged near the waterway. Complete containment and recovery of drilling fluid released before detection may not be feasible depending on the flow of waterway.

Specific barriers and equipment will be identified by the HDD contractor once contracted.

5.4 Waterway, on land

Containment on land will be by construction of a sump by installing temporary barriers such as sandbags around the release and pumping the contained fluid into the fluid circulation system.

The fluid released before containment was established will be contained with temporary barriers such as sand bags and then swept back into the containment sump or contained in low areas and

vacuumed into holding tanks. For smaller releases, a vacuum truck hose may be used to collect released fluids if the vacuum truck is able to keep up with the rate of release.

Specific barriers and equipment will be identified by the HDD contractor once contracted.

5.5 Surface Obstacle Crossing

Containment on land will be by construction of a sump by installing temporary barriers such as sandbags around the release and pumping the contained fluid into the fluid circulation system.

The fluid released before containment was established will be contained with temporary barriers such as sand bags and then swept back into the containment sump or contained in low areas and vacuumed into holding tanks. For smaller releases, a vacuum truck hose may be used to collect released fluids if the vacuum truck is able to keep up with the rate of release.

Specific barriers and equipment will be identified by the HDD contractor once contracted.

6.0 Remediation

If a fluid release occurs, the HDD contractor will contain and pump or vacuum up the fluid. On land the fluid that can not be recovered will be diluted and removed from vegetation by washing with water.

ATTACHMENT 2

Stream Identification and Wetland Delineation Report

LAKE ERIE CONNECTOR PROJECT WATERBODY IDENTIFICATION AND WETLAND DELINEATION REPORT

Prepared for: ITC Lake Erie Connector, LLC Novi, MI

Prepared by: HDR ENGINEERING, INC. Portland, Maine and Pittsburgh, Pennsylvania

January 2016

FSS

LAKE ERIE CONNECTOR PROJECT WATERBODY IDENTIFICATION AND WETLAND DELINEATION REPORT

TABLE OF CONTENTS Title

Page No.

1.0	Introduction	1
2.0	Project Description	1
3.0	Regulatory Authority	2
4.0	Field Investigation Methods	3
5.0	Results of Wetland Investigation	4
6.0	Description of Wetlands	6
7.0	Results of the Waterbody Identification	9
8.0	Descriptions of the Waterbodies	11
9.0	Summary	14
10.0	References	14

LIST OF TABLES

Table 5.0-1	Wetlands Identified within the Underground Segment	
Table 7.0-1	Waterbodies Identified within the Underground Segment	

Appendices

Section

Appendix A:	Figures
	Project Location Map
	Resource Map
Appendix B:	Photographs of the Wetlands and Waterbodies
Appendix C:	USACE Wetland Determination Data Forms

1.0 INTRODUCTION

This Waterbody Identification and Wetland Delineation Report provides details about the portion of the ITC Lake Erie Connector Project located in the United States (U.S.) and the potential effects of the Project on waterbodies and wetlands. This report includes the results of the wetland and waterbody field delineations conducted to identify potential "Waters of the United States," as defined by the United States Army Corps of Engineers (USACE) (33 CFR §328.3), and "waters of the Commonwealth" as defined by the Pennsylvania Dam Safety and Water Obstructions Act and related regulations (25 Pa. Code Ch. 105) within the area of potential disturbance in areas that may be disturbed by the proposed underground cable and converter station installation.

The findings included in this report are based on review of publicly available mapping and field investigations conducted by HDR. Publicly available mapping included 7.5-minute United States Geological Survey (USGS) topographic quadrangles, soil survey maps, aerial photograph, and National Wetland Inventory (NWI) maps. Field investigations were conducted by experienced HDR personnel on August 4, 2014 through August 8, 2014, November 5 and 6, 2014, December 22, 2014, April 15 and 16, 2015, September 28, 2015, and December 30, 2015.

The environmental survey corridor included a 150-foot wide area centered on the cable route and surveys of the converter station boundary as defined by engineering requirements. The proposed construction corridor includes the construction workspace that will range between 40- and 75-feet in width, access roads, and potential laydown area. A map showing the location of cable and delineated wetlands and waterbodies is included in Appendix A.

2.0 PROJECT DESCRIPTION

The Lake Erie Connector Project (Project) is an independent electric transmission facility proposed by ITC Lake Erie Connector, LLC (ITC). The proposed Project is an approximately 72.4 mile (116.5 km) 1,000 megawatt (MW) +/-320 kilovolt (kV) high-voltage direct current (HVDC) bi-directional electric transmission interconnection, which is being built to transfer electricity between Canada and the United States. The HVDC transmission line will run from Nanticoke, Ontario, through the lakebed in Lake Erie to Springfield Township in Erie County, Pennsylvania, where it will make landfall. The transmission line will then run underground to a new converter station, which will be built as part of the Project (called the Erie Converter Station), in Conneaut Township in Erie County, Pennsylvania.

The HVDC transmission line consists of two transmission cables, one positively charged and the other negatively charged, along with a fiber optic cable for communications between the converter stations. In the U.S., the transmission line elements of the Project consist of:

- U.S., HVDC underwater (from US border to Erie County landfall) 35.4 mi (57.0 km)
- U.S., HVDC underground (from landfall to Erie Converter Station) 7.1 mi (11.4 km)
- U.S., HVAC underground (from Erie Converter Station to Erie Waste Substation) 2,802 feet

The majority of the proposed on-land U.S. cable route uses existing roadway corridors to minimize the creation of new rights-of-way (ROWs). The cable system will be buried on land using conventional open trenching methods, with trenchless techniques used in situations where conventional trenching is inappropriate because of the potential for unacceptable environmental impacts or public inconvenience.

The Erie Converter Station will convert +/- 320 kV DC power to 345 kV AC power or vice-versa and will connect to a nearby point of interconnection (POI) at the existing Penelec Erie West Substation that is part of the PJM grid¹. The final route for the underground 345 kV AC line that will interconnect the Converter Station and adjacent Erie West Substation has not yet been determined, but will range from approximately 2,802 feet in length.

3.0 REGULATORY AUTHORITY

Activities conducted in navigable waters of the United States are subject to regulation by the USACE under Section 10 of the Rivers and Harbors Act of 1899. The USACE Ordinary High Water Mark (OHWM) is a jurisdictional benchmark for administering its regulatory program in navigable waterways under Section 10 of the Rivers and Harbors Act. The OHWM is the location that represents the approximate line on the shore established by fluctuations of water as indicated by physical characteristics such as shelving, destruction of terrestrial vegetation, presence of litter or debris, or changes in the character of the soil.

Activities involving the placement of fill into certain wetlands and other bodies of water in Pennsylvania are regulated by the USACE through Section 404 of the federal Clean Water Act (CWA). Section 404 of the CWA grants the United States Environmental Protection Agency (USEPA) and USACE regulatory power over "Waters of the United States" as defined by 33 CFR §§328.3 and 329.4: "Traditional navigable waters; interstate waters, including interstate wetlands; the territorial seas; impoundments of traditional navigable waters, interstate waters, including interstate wetlands, the territorial seas, and tributaries, as defined, of such waters; tributaries, as defined, of traditional navigable waters, interstate waters, or the territorial seas; and adjacent waters, including adjacent wetlands." Waterbodies under the jurisdiction of the USACE include Traditional Navigable Waterways (TNWs), which include all of the navigable waters of the United States as defined in 33 CFR 329, and by numerous federal court decisions. In addition, non-navigable tributaries of TNWs that are relatively permanent waterways (RPWs) are also considered to be jurisdictional waters of the United States. Under court interpretations, the USACE also can assert jurisdiction over non-navigable tributaries that have a channel and OHWM but do not flow year round or have continuous flow at least seasonally if they demonstrate a significant nexus with a TNW.

In Pennsylvania, activities involving water obstructions or encroachments in, along, or across watercourses, wetlands and other bodies of water are also subject to regulation by the Pennsylvania Department of Environmental Protection (PADEP) adopted pursuant to the Pennsylvania Dam Safety and Encroachments Act and regulations contained in 25 Pa. Code

¹ PJM Interconnection is the regional transmission organization that coordinates electricity movement in 13 U.S. states and the District of Columbia.

Chapter 105. The Dam Safety and Encroachments Act defines a "body of water" as any natural or artificial lake, pond, reservoir, swamp, marsh, or wetland. Under Chapter 105, regulated waters of Pennsylvania are defined as "watercourses, streams, or bodies of water and their floodways wholly or partly within or forming part of the boundary of this commonwealth." PADEP regulates activities both within a wetland or watercourse, and also structures and fill within stream floodways (defined as the floodway mapped on FEMA maps, or where such maps are not available, an area presumed to extend 50 feet from the top of stream bank on either side of the waterway).

4.0 FIELD INVESTIGATION METHODS

The wetland and waterbody delineations were conducted August 4, 2014 through August 8, 2014, November 5 and 6, 2014, December 22, 2014, April 15 and 16, 2015, September 28, 2015, and December 30, 2015. Investigations indicate the presence of 19 wetlands, 20 streams, Lake Erie, and one pond within the environmental survey limits of the proposed underground cable route. The locations of these features are shown in Appendix A.

The wetland delineation was conducted following the methodology set forth in the USACE Wetland Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northeast and North Central Region Version 2.0 (January 2012). Hydrology, soils, and vegetation were examined throughout the survey corridor. Wetland boundaries and streams were marked with pink or blue flags labeled with the wetland or stream identification number. All flagged locations were field-located using a sub-meter global positioning system (GPS) unit.

A representative test site was chosen at each wetland, where hydrology, soil, and vegetation were evaluated. Evidence of wetland hydrology was noted by identifying direct and indirect indicators of hydrologic influence. Soil borings were extracted with an auger to a depth sufficient to document an indicator or confirm the absence of hydric soil indicators. For each plant community, the percent aerial cover of dominant plants was estimated and hydrophytic status was determined using the 2014 National Wetland Plant List.

Streams that occurred within the environmental survey limits were classified as perennial, intermittent, or ephemeral. The types of substrate and the amount of water present were also recorded. The stream bank height and width were estimated from the top of bank (TOB) and the OHWM was noted and recorded using a sub-meter GPS unit. The OHWM was determined by observing the characteristics such as: natural line impressed on the bank, shelving, changes in the soil character, destruction of terrestrial vegetation, presence of litter and debris, wracking, vegetation matted down, bent, or absent, sediment sorting, leaf litter disturbed or washed away, scour, deposition, bed and banks, water staining, and changes in plant community. From the perspective of USACE and DEP jurisdiction, channels that parallel the roadway or railroad were identified as upland drainage features and were not considered to be jurisdictional unless they had an identifiable OHWM, were identified on the USGS topographic map, or represented a presumed relocation of a natural channel.

5.0 RESULTS OF WETLAND INVESTIGATION

Four basic types of wetlands were identified along the Project corridor:

- Palustrine Emergent (PEM) wetlands that are characterized by erect, rooted, herbaceous, hydrophytes, excluding mosses and lichens (Cowardin, et al., 1979).
- Palustrine Scrub-Shrub (PSS) wetlands that are dominated by woody vegetation less than 20-feet tall (Cowardin, et al., 1979).
- Palustrine Forested (PFO) wetlands that are dominated by woody vegetation that is at least 20-feet tall (Cowardin, et al., 1979).
- Palustrine Unconsolidated Bottom (PUB) wetlands and deepwater habitats with at least 25% cover of particles smaller than stone, and a vegetative cover less than 30% (Cowardin, et al., 1979).

Table 5.0-1 summarizes the results of the wetland field investigation. Each wetland is identified by a unique HDR Engineering, Inc. (HDR) identifier assigned during the field investigation.

Table 5.0-1	wetiands identified within the Underground Segment						
Unique Identifier	Dominant NWI Classification	Associated Stream	Latitude; Longitude	Proposed to be Crossed by the Project			
WPA-KAS-001	PFO	Abutting SPA- KAS-001 (UNT	42.005855; - 80 398276	Yes			
		to Lake Erie)	00.370270				
WPA-KAS-002	PFO, PEM	Adjacent to SPA-	42.006629; -	Yes			
		KAS-001 (UNT	80.399204				
WDA KAS 004	DEO	to Lake Erie)	<i>A1 006011</i> .	Vac			
WI A-KAS-004	110	KAS-006 (UNT	80.388225	105			
		to Lake Erie)	000000000000000000000000000000000000000				
WPA-KAS-012	PFO	Abutting	41.961778; -	Yes			
		Unidentified	80.377322				
		Stream (UNT to					
		Crooked Creek)					
WPA-KAS-018	PEM	Abutting	41.935102, -	Yes - AC Cable			
		Unidentified	80.381133	route			
		Stream (UN1 to Crooked Creek)					
WDA KAS 023	DEO	Adjacent to	/1 037101.	Vac			
WIA-RAS-025	110	Crooked Creek	80.380047	105			
WPA-KAS-028	PEM, PSS, PFO	Abutting SPA-	41.966177: -	Yes			
	, _ , _ , _ ,	KAS-016	80.388335				
		(Crooked Creek)					
WPA-KAS-029	PEM, PSS	Abutting SPA-	41.943935; -	Yes			
		KAS-017 (UNT	80.374931				
		to Crooked					

Table 5.0-1Wetlands Identified within the Underground Segment

Unique Identifier	Dominant NWI Classification	Associated Stream	Latitude; Longitude	Proposed to be Crossed by the Project		
		Creek)				
WPA-KAS-030	PEM	Isolated	Yes			
WPA-KAS-031	PFO, PEM	Abutting Unidentified Stream (UNT to Crooked Creek)	Yes			
WPA-KAS-032	PEM	Abutting SPA- KAS-018 (UNT to Crooked Creek)	Yes			
WPA-KAS-034	PEM	Abutting SPA- KAS-020 (UJNT to Crooked Creek)	41.978265; - 80.388002	Yes		
WPA-KAS-035	PEM	Abutting SPA- KAS-021 (UNT to Crooked Creek)	Abutting SPA- 41.983645; - KAS-021 (UNT 80.387792 to Crooked Creek)			
WPA-KAS-036	PFO	Adjacent to SPA- KAS-026 (UNT to Crooked Creek)	41.964316; - 80.38818	Yes		
WPA-KAS-037	PUB	Isolated	41.969176; - 80.388424	No		
WPA-KAS-038	PEM	Isolated	41.970097; - 80.38846	Yes		
WPA-KAS-039	PFO	Abutting SPA- 41.973231; - KAS-019 80.389591 (Crooked Creek) -		No		
WPA-KAS-040	PEM	Abutting Unnamed Tributary to Crooked Creek	No			
WPA-KAS-041	PEM	Abutting Unnamed Tributary to Crooked Creek	41.934894, - 80.382307	No		

6.0 DESCRIPTION OF WETLANDS

Wetlands delineated within the survey corridor are described below. Photographs of each wetland are included in Appendix B and datasheets are provided in Appendix C. Potential Project impacts to wetlands are shown in Table 3 and 4, and discussed in Section 9 of this report.

Wetland WPA-KAS-001 is a palustrine forested wetland (PFO) located in a depression. The wetland is bound on the south by a railroad track. The wetland is hydrologically connected to stream SPA-KAS-001 and wetland WPA-KAS-002. The hydrologic characteristics of the wetland include a high water table, saturated soils, and hydrogen sulfide odor. National Wetland Inventory (NWI) mapping lists this area as a PFO wetland as well as the field data collected. The dominant vegetation includes eastern cottonwood (*Populus deltoides*), slippery elm (*Ulmus rubra*), spicebush (*Lindera benzoin*), spotted jewelweed (*Impatiens capensis*), wrinkleleaf goldenrod (*Solidago rugosa*), and sensitive fern (*Onoclea sensibilis*). The soils exhibit a depleted matrix.

Wetland WPA-KAS-002 is a wetland complex consisting of a PFO and a palustrine emergent (PEM) wetland. The two types ungulate and are very extensive in the area west of the landowner access road. The area east of the landowner access road is also dominated by wetland WPA-KAS-002, but the stream, SPA-KAS-001, collects a lot of the moisture and limits the extent of the wetlands. The hydrologic characteristics of the wetland include surface water, high water table, and saturated soils. The PFO wetland is dominated by eastern cottonwood, green ash (*Fraxinus pennsylvanica*), spicebush, Japanese honeysuckle (*Lonicera japonica*), spotted jewelweed, and fowl manna grass (*Glyceria striata*). The PEM portion of the wetland has vegetation dominated by cottongrass bulrush (*Scirpus cyperinus*), boneset (*Eupatorium perfoliatum*) and fowl manna grass. The soils exhibit a depleted matrix.

Wetland WPA-KAS-004 is a PFO wetland located at the edge of Townline Road and West Middle Road. The roads are elevated, therefore they bisect and interrupt the wetland. The wetland on the east and west of Townline Road is connected via stream SPA-KAS-006. The hydrologic characteristics of this wetland include surface water, a high water table, saturated soils, water marks, sediment deposits, water-stained leaves, and moss trimmed lines. The vegetation is dominated by red maple (*Acer rubrum*), slippery elm, eastern cottonwood, silky dogwood (*Cornus ammomum*), and spotted jewelweed. The soils exhibit a depleted matrix.

Wetland WPA-KAS-012 is a PFO wetland located in a depression along a former railroad bed crossing of Springfield Road. The wetland drains into a ditch and passes through a culvert under Springfield Road. This wetland abuts a local stream located outside the survey corridor. The wetland hydrology characteristics include surface water, a high water table, saturated soils, water marks, and water-stained leaves. The deciduous vegetation is dominated by red maple, white ash (*Fraxinus americana*), multiflora rose (*Rosa mutiflora*), and spotted jewelweed. The soils exhibit a loamy gleyed matrix.

Wetland WPA-KAS-018 is a PEM wetland located within a regularly maintained transmission line ROW. The regular vegetation maintenance is apparent due to the dead dogwood shrubs within the wetland. The wetland connects to a PSS and a PFO wetland located to the north of the

delineated area. The wetland hydrology is disturbed due to prior construction but consists of surface water, a high water table, and saturated soils. The vegetation is dominated by deer tongue rosette grass (*Dichanthelium clandestium*), sensitive fern, and cotton grass bulrush (*Scirpus cyperinus*). The soils exhibit a depleted matrix.

Wetland WPA-KAS-023 is a PFO wetland. Due to the relatively large size, multiple data points were taken. The hydrology characteristics include surface water, a high water table, saturated soils, and water stained leaves. The vegetation is dominated by red maple, green ash, multiflora rose, spotted jewelweed, poison ivy, and sensitive fern. The soils exhibit a loamy gleyed matrix.

Wetland WPA-KAS-028 is a wetland complex containing PEM, PSS, and PFO portions. The wetland abuts stream SPA-KAS-016. The wetland is located in a valley with saturated soils. The PEM portion of the wetland has hydrology indicators including high water table, saturated soils, drainage patterns, geomorphic position, and a microtopic relief. The emergent vegetation is dominated by black willow, fowl manna grass, Canadian goldenrod, and soft rush. The PSS portion of the wetland has hydrology indicators including surface water, saturated soils, water marks, water-stained leaves, drainage patterns, and microtographic relief. The vegetation is dominated by red osier dogwood (*Cornus alba*), and silky dogwood. The forested portion of the wetland contains hydrology indicators including surface water, high water table, saturated soils, water-stained leaves, and moss trimmed lines. The vegetation of the forested wetland is dominated by red maple, sweet birch (*Betula lenta*), American sycamore (*Platanus occidentalis*), multiflora rose, sensitive fern, and soft rush. All portions of the wetland (PEM, PSS, PFO) have hydric soils indicated by the presence of a depleted matrix.

Wetland WPA-KAS-029 is a wetland complex that is a PEM wetland on the western side of the road and a PSS wetland on the eastern side of the road. A culvert connects the two sides for high flow periods and a defined channel, stream SPA-KAS-017 begins on the eastern side of the road. The PEM portion of the wetland has saturated soils, drainage patterns, and microtopographic relief. The vegetation is dominated by silky dogwood, fowl manna grass, and erect knotweed (*Polygonum erectum*). The PSS portion of the wetland is dominated by silky dogwood and multiflora rose.

Wetland WPA-KAS-030 is a PEM wetland that appears to be isolated. It is located in a roadside ditch along interstate I-90. The wetland hydrology indicators include surface water, saturated soils, and drainage patterns visible on aerial imagery. The vegetation is dominated by broadleaf cattails and flat top goldentop (*Euthamia graminifolia*).

Wetland WPA-KAS-031 is a wetland complex located on both sides of Springfield Road. The western side of the road is a PEM wetland with hydrology indicators including high water table, saturated soils, drainage patterns, and microtopographic relief. The vegetation is dominated by broadleaf cattails. The soils indicate a redox dark surface. The PFO portion of the wetland is located on the eastern side of Springfield Road. The hydrology indicators include high water table, saturated soils, moss trim lines, saturation visible on aerial imagery, and geomorphic position. The vegetation is dominated by red maple, eastern cottonwood, red osier dogwood, reed canary grass (*Phalaris arundinacea*), and common duckweed (*Lemna minor*). The forested

wetland seems to be bordered by the road and two residential areas. The soils indicate a redox dark surface.

Wetland WPA-KAS-032 is a PEM wetland located along the eastern side of Springfield Road. The wetland appears to be located in a derelict agricultural field. The hydrology indicators include saturated soils and microtopographic relief. The vegetation is dominated by reed canary grass, European buckthorn (*Rhamnus cathartica*), and Canadian goldenrod. The soils exhibit a depleted matrix.

Wetland WPA-KAS-034 is a PEM wetland located within a valley crossed by Townline Road. The wetland abuts the perennial stream SPA-KAS-020. The hydrology indicators include surface water, high water table, saturated soils, water marks, sediment deposits, water stained leaves, and microtopographic relief. The vegetation is dominated by multiflora rose, tearthumb (*Persicaria sagitata*), and spotted jewelweed. Most of the wetland area is ponded and lacking vegetation. The soils exhibit a depleted matrix.

Wetland WPA-KAS-035 is a PEM wetland located within a valley crossed by Townline Road. The wetland abuts the perennial stream SPA-KAS-021. The hydrology indicators include surface water, a high water table, saturated soils, water stained leaves, hydrogen sulfide odor, drainage patterns, and microtopographic relief. The wetland vegetation is minimal on the southern side of the stream. The northern side of SPA-KAS-021 is dominated by common reed (*Phragmites austalis*) and fowl manna grass. The soils have a hydrogen sulfide odor and a sandy gleyed matrix.

Wetland WPA-KAS-036 is a PFO wetland adjacent to stream SPA-KAS-025. The wetland is located north of Springfield Road. The hydrology indicators include surface water, a high water table, saturated soils, water marks, water stained leaves, drainage patterns, and moss trimmed lines on trees. The vegetation is dominated by red maple, privet (*Ligustrum japonicum*), and fowl manna grass. The soil has a hydrogen sulfide odor and 5 cm of mucky peat.

Wetland WPA-KAS-037 is a PUB wetland located along the edge of a farm road and has tire tracks leading into the wetland. It appears to be isolated from other bodies of water. The wetland has at least twelve inches of standing water and little to no vegetation growing in it. The hydrology indicators include surface water, high water table, saturated soils, and a hydrogen sulfide odor.

Wetland WPA-KAS-038 is a PEM wetland located close to wetland WPA-KAS-037. The wetland appears to be isolated from other bodies of water. The wetland is located in an area impacted by a farm road. The wetland connects to a PSS portion to the western side of the delineated area. The PEM wetland hydrology indicators include saturated soils. The vegetation is dominated by tearthumb and reed canary grass. The soils exhibit a depleted matrix.

Wetland WPA-KAS-039 is a PFO wetland located in a valley below a bridged portion of Ridge Road. The wetland is adjacent to Crooked Creek. The wetland is bordered by the fill of Ridge Road and the wetland continues outside of the study corridor. The hydrology indicators include surface water, a high water table, saturated soils, water marks, and oxidized rhizospheres on living roots. The dominant vegetation includes wrinkleleaf goldenrod, red maple, and creeping jenny (*Lysimachia nummularia*). The soils indicate a depleted matrix.

Wetland WPA-KAS-040 is a PEM wetland located beneath the existing transmission line near the Erie West Converter Station. The wetland is significantly disturbed due to regular maintenance of the vegetation. The wetland hydrology indicators include surface water, high water table, saturated soils, water-stained leaves, and drainage patterns. The dominant vegetation includes silky dogwood (*Cornus amomum*) and common reed. The soils indicate a depleted matrix.

Wetland WPA-KAS-041 is a PEM wetland located within the existing transmission line near the Erie West Converter Station. The wetland is significantly disturbed due to the regular maintenance of the vegetation. The wetland hydrology indicators include surface water, high water table, saturated soils, water stained leaves, and drainage patterns. The dominant vegetation includes

7.0 RESULTS OF THE WATERBODY IDENTIFICATION

Four (4) types of waterbodies were identified within the survey corridor:

- **Ephemeral** An ephemeral stream has flowing water only during and for a short duration after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.
- **Intermittent** An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
- **Perennial** A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- **Ponds** A pond is an impoundment with still surface water, often manmade, usually smaller than a lake.

A total of 20 streams were identified within the survey corridor. Table 7.0-1 summarizes the results of the waterbody field investigation. Names of waterbodies are as identified on USGS 7.5-minute topographic quad maps. In addition, one pond and Lake Erie were identified within the survey corridor.

Unique Field Identifer ¹	Waterbody	Stream Type	Latitude, Longitude	Chapter 93 Classification ²	Class A Wild Trout Waters ³ , Wild or	Stocked Trout or Approved Trout	Potential USACE	Average Bank- to-Bank Width	Ordinary High Water Mark	Crossed by Preferred
					Scenic River ⁴ , Streams that Support Natural Reproduction of Trout ⁵	Waters ^o	Classification'	(feet)	(feet)	Route
SPA-KAS-001	UNT to Lake Erie	Perennial	42.010269: -80.401812	CWF. MF	No	No	RPW	20	0.67	No
SPA-KAS-002	UNT to Lake Erie	Perennial	42.005861: -80.393534	CWF. MF	No	No	RPW	5	0.50	Yes
SPA-KAS-004	UNT to Lake Erie	Perennial	42.006041; -80.387711	CWF, MF	No	No	RPW	5	0.33	Yes
SPA-KAS-005	UNT to Lake Erie	Perennial	41.998203; -80.38788	CWF, MF	No	No	RPW	10	1.00	Yes
SPA-KAS-006	UNT to Lake Erie	Perennial	41.996566; -80.387871	CWF, MF	No	No	RPW	5	2.00	Yes
SPA-KAS-016	Crooked Creek Crossing #1	Perennial	41.942151; -80.374538	HQ-CWF, MF	No	Yes	RPW	8	1.00	Yes
SPA-KAS-017	UNT to Crooked Creek	Intermittent	41.944013; -80.374683	HQ-CWF, MF	No	Yes	RPW	1	0.17	Yes
SPA-KAS-018	UNT to Crooked Creek	Intermittent	41.957231; -80.373775	HQ-CWF, MF	No	Yes	RPW	3	0.17	Yes
SPA-KAS-020	UNT to Crooked Creek	Perennial	41.978277; -80.387896	HQ-CWF, MF	No	Yes	RPW	3	0.50	Yes
SPA-KAS-021	UNT to Crooked Creek	Perennial	41.983685; -80.388018	HQ-CWF, MF	No	Yes	RPW	3.5	0.50	Yes
SPA-KAS-022	UNT to Crooked Creek	Perennial	41.973788; -80.387212	HQ-CWF, MF	No	Yes	RPW	2	2.00	Yes
SPA-KAS-023	UNT to Crooked Creek	Ephemeral	41.973291; -80.387088	HQ-CWF, MF	No	Yes	Non-RPW	5	0.50	No
SPA-KAS-024	UNT to Crooked Creek	Intermittent	41.973008; -80.386727	HQ-CWF, MF	No	Yes	RPW	2	0.50	No
SPA-KAS-025	UNT to Crooked Creek	Intermittent	41.966177; -80.388335	HQ-CWF, MF	No	Yes	RPW	3	0.17	Yes
SPA-KAS-026	UNT to Crooked Creek	Perennial	41.963631; -80.380427	HQ-CWF, MF	No	Yes	RPW	4	0.50	No
SPA-KAS-027	UNT to Crooked Creek	Perennial	41.941864; -80.375192	HQ-CWF, MF	No	Yes	RPW	2	0.25	No
SPA-KAS-028	UNT to Crooked Creek	Perennial	41.937924; -80.377380	HQ-CWF, MF	No	Yes	RPW	0.5	0.17	No
SPA-KAS-029	UNT to Crooked Creek	Perennial	41.938034; -80.377811	HQ-CWF, MF	No	Yes	RPW	1.25	0.5	No
SPA-KAS-030	UNT to Crooked Creek	Ephemeral	41.974256; -80.387413	HQ-CWF, MF	No	Yes	Non-RPW	2	0.25	Yes
SPA-KAS-031	UNT to Crooked Creek	Ephemeral	41.938034; -80.377811	HQ-CWF, MF	No	Yes	Non-RPW	0.5	0.25	Yes
PPA-KAS-002	Manmade Pond	-	41.941263; -80.374416	HQ-CWF, MF Watershed	No	No	-	-	-	Yes
Lake Erie	-	-		CWF	No	No	-	-	-	Yes

Waterbodies Identified within the Underground Segment. **Table 7.0-1**

Notes: UNT = unnamed tributary HQ-CWF = high quality, coldwater fisheries MF = migratory fishery passageway RPW = relatively permanent water

1. Unique identifier assigned to feature during field surveys and correlates with mapping nomenclature.

2. Chapter 93 Classification based on Chapter 93 Water Quality Standards available at: http://www.pacode.com/secure/data/025/chapter93/chap93toc.html. Accessed August 2014.

3. Class A Wild Trout Waters are based on the PA Fish and Boat Commission's Class A Wild Trout Waters created December 16, 2013. Available at: http://fishandboat.com/classa.pdf. Accessed August 2014.

4. Wild and Scenic Rivers based on the National Wild and Scenic River System available at: http://www.rivers.org/. Accessed August 2014.

5. Natural trout producing waters are based on the PA Fish and Boat Commission's Stream Sections Supporting Natural Reproduction of Trout. May 2014. Available at: http://fishandboat.com/trout_repro.htm. Accessed August 2014.

6. Approved Trout Waters are based on the PA Fish and Boat Commission's Regulated Trout Waters website available at: http://fishandboat.com/fishpub/summary/troutregs_nw.htm. Accessed August 2014.

7. Jurisdictional classification must be confirmed by USACE.

8.0 DESCRIPTIONS OF THE WATERBODIES

Stream SPA-KAS-001 is an unnamed perennial tributary to Lake Erie. The source of the stream is a groundwater seep, GWPA-KAS-001, that produces a high volume of water. Where it crosses the lake bluff, the stream flows relatively straight until it comes close to Lake Erie. The lake is lined by bluffs and at this point erosion on the stream banks is extensive. The stream is about 40 feet below the level of the ground. The stream begins along the east side of the access road with a width of about three feet, flows through wetland WPA-KAS-002, and increases in width until it reaches Lake Erie.

Stream SPA-KAS-002 is an unnamed perennial tributary to Lake Erie. The stream crosses Pennsylvania Route 5 (West Lake Road) via a ten foot by twelve foot box culvert. The stream flows through forested upland areas. Small fish and macroinvertebrates were observed at the time of survey. The average bank to bank width is five feet and the ordinary high water mark (OHWM) is located at approximately six inches from the stream bottom.

Stream SPA-KAS-004 is an unnamed perennial stream that flows through an agricultural field, and which then flows under Townline Road via a 36-inch corrugated plastic culvert. The stream is mowed and maintained up to the banks. The bank to bank width of the stream is five feet and the OHWM is located at approximately four inches from the stream bottom.

Stream SPA-KAS-005 is a perennial unnamed tributary to Stream SPA-KAS-002 that flows into Lake Erie. The stream flows between agricultural fields and then flows under Townline Road via a 24-inch corrugated plastic culvert. The stream has a forested buffer that includes species such as black willow. Fringe wetlands are located within the stream channel. The stream is approximately ten feet from bank to bank with an OHWM at approximately one foot from the stream bottom.

Stream SPA-KAS-006 is a perennial unnamed tributary to Lake Erie that flows through wetland WPA-KAS-004. The stream is very defined on the west side of Townline Road where it flows through wetland WPA-KAS-004. To the east, the stream is faintly defined because it is wetland WPA-KAS-004 that contains standing water. There is a tributary to stream SPA-KAS-006 that flows along the edge of wetland WPA-KAS-004 and Townline Road. The average bank to bank width is five feet and the OHWM is observed at two feet from the stream bottom.

Stream SPA-KAS-016 is the perennial stream Crooked Creek. Crooked Creek was identified multiple times within the survey corridor. One of the stream crossings crosses Lexington Road via a large culvert. The stream is braided on the western side of the road and meanders through a valley on the eastern side of the road. Both sides of the stream have wetlands abutting. The western side of the road contains various types of wetlands, PEM and PSS. The eastern side of the road is dominated by PEM wetlands. Wetland details are provided in the summary for WPA-KAS-028. The stream is approximately eight feet wide with an OHWM located at one foot from the stream bottom. The next time the stream was identified within the survey corridor is near the Ridge Road/State Route 20 crossing. The stream flows in the base of a valley

Stream SPA-KAS-017 is an intermittent unnamed tributary to Crooked Creek. The stream begins on the eastern side of Lexington Road where it appears culverts feed the channel. No flow was noted on the other side of the culverts. The stream meanders through a wooded valley with an abutting wetland, WPA-KAS-029. The stream is approximately one foot wide with an OHWM located at two inches from the stream bottom.

Stream SPA-KAS-018 is an intermittent unnamed tributary to Crooked Creek. The stream flows through a farm field and next to a residential house. The stream abuts the wetland WPA-KAS-032. The stream crosses Springfield Road through a culvert. The average bank to bank width is three feet and the OHWM was observed at two inches from the stream bottom.

Stream SPA-KAS-020 is a perennial unnamed tributary to Crooked Creek. The stream flows under Townline Road via a culvert. The portion of the stream located on the eastern side of the road is abutting wetland WPA-KAS-034. The average bank to bank width is three feet and the OHWM is located at six inches from the stream bottom.

Stream SPA-KAS-021 is a perennial unnamed tributary to Crooked Creek. This stream flows under Townline Road via a culvert. The stream is narrow (approximately three feet) and abuts wetland WPA-KAS-035 on the eastern side of the road. On the western side of the road, the stream enlarges to approximately 30 feet wide.

Stream SPA-KAS-022 is a perennial unnamed tributary to Crooked Creek. The stream source appears to be runoff from a paved area. The water flows through a channel that is diverted under a farm road via a culvert. The stream is approximately two feet bank to bank width and an OHWM is visible at two inches from the stream bottom.

Stream SPA-KAS-023 is an ephemeral unnamed tributary to Crooked Creek that flows along a farm road. The stream is located at the toe of slope where the hill meets the elevated road. The stream is covered in leaves, but beneath the leaves is a very low flow stream. The average bank to bank width is five feet and the OHWM is observed at six inches from the stream bottom.

Stream SPA-KAS-024 is an intermittent unnamed tributary to Crooked Creek. The stream is located along a slope where it begins and conveys water into the valley of Crooked Creek. The stream bank to bank width is two feet and the OHWM is located at six inches from the stream bottom.

Stream SPA-KAS-025 is an intermittent unnamed tributary to Crooked Creek. The stream begins outside of the study corridor as a natural channel that discharges water from WPA-KAS-036. The stream crosses a farm access road via a culvert and continues outside of the study corridor. The stream average bank to bank width is three feet and the OHWM is observed at two inches from the stream bottom.

Stream SPA-KAS-026 is a perennial unnamed tributary to Crooked Creek. The stream crosses Springfield Road via a culvert. The stream is located next to a field used for agricultural purposes as well as a shrubby and overgrown area that does not appear to be utilized for anything. The stream is an unnamed tributary to Crooked Creek. The average bank to bank width is four feet and the OHWM is located at approximately six inches from the stream bottom.

Stream SPA-KAS-027 is a perennial unnamed tributary to Crooked Creek. The stream is located in a valley and is sourced from a drainage culvert beneath the adjacent agricultural field. The stream meanders through wetland WPA-KAS-028. The average bank to bank width is two feet and the OHWM is located at three inches from the stream bottom.

Stream SPA-KAS-028 is a perennial unnamed tributary to Crooked Creek. The stream begins at a culvert that drains the agricultural field. The stream flows through a wetland area and out of the study corridor. The average bank to bank width is six inches and the OHWM is located at two inches from the stream bottom.

Stream SPA-KAS-029 is a perennial unnamed tributary to Crooked Creek. The stream flows also begins as a drainage area on the agricultural field, meanders through a forested wetland, and then drains into SPA-KAS_028. The average bank to bank width of the stream is 1.25 feet and the OHWM is located six inches from the stream bottom.

Stream SPA-KAS-030 is a ephemeral unnamed tributary to Crooked Creek. The stream source is roadside drainage from Route 20/Ridge Road and flows into SPA-KAS-023 after a few feet. The stream is located in a steep valley with disturbance on both sides of the stream banks. To the west is a gravel lot and to the east is a hill side storage area for vehicles and equipment. The average bank to bank width is six inches and the OHWM is located at two inches from the stream bottom.

Stream SPA-KAS-031 is an ephemeral unnamed tributary to Crooked Creek. The stream is located in a fallow field and appears to be impacted by manmade maintenance activities as well as dirt bikes. The stream flows through a culvert. The average bank to bank width is six inches and the OHWM is located at two inches.

Pond PPA-KAS-002 is a pond located in the front of a residential house. The pond appears to be man-made.

Lake Erie is located at the northern most end of the United States side of the Project. The shore to lake transition is located west of the Erie Bluffs State Park. The interphase at the study corridor is characterized by a 90-foot bluff.

9.0 SUMMARY

Wetland and waterbodies delineations were conducted by HDR personnel on August 4, 2014 through August 8, 2014, November 5 and 6, 2014, December 22, 2014, April 15 and 16, 2015, September 28, 2015, and December 22, 2015. Environmental surveys were conducted along a 150-foot wide corridor centered on the proposed transmission line route. Investigations indicated the presence of 17 wetlands, 21 waterbodies, one pond, and Lake Erie. Out of the 17 wetlands, 7 are PEM, 6 are PFO, and 4 are wetlands that contain multiple NWI types. The 21 streams include: 14 perennial streams, 4 intermittent streams, and 3 ephemeral streams. In addition one pond and Lake Erie were identified in the study corridor.

Statements in this document pertaining to the jurisdictional classification of streams and wetlands with regards to USACE and PADEP regulation represent the opinion of HDR and are based on the present guidelines.

10.0 REFERENCES

- Cowardin, D. M., V. Carter, F. C. Golet, and E. T. La Roe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. United States Department of the Interior, Fish and Wildlife Service. Publication No. FWS/OBS-79/31. Washington, D.C.
- Dam Safety and Waterway Management. 25 Pa. Code § 105. http://www.pacode.com/secure/data/025/chapter105/chap105toc.html.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. United States Department of the Army, United States Army Engineer Waterways Experiment Station. Technical Report Y-87-1. Vicksburg, Mississippi.
- Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. The National Wetland Plant List: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 1-42.. Accessed August 2014.
- Munsell Color. 2000. Munsell Soil Color Chart. Munsell Color X-rite. Grand Rapids, MI.
- Rhoads, Ann Fowler and Timothy A. Block. The Plants of Pennsylvania, an Illustrated Manual. Philadelphia: University Pennsylvania Press, 2007. Print.
- United States Army Corps of Engineers. 2007. Jurisdictional Determination Form Instructional Guidebook. [Online[URL: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/jd_guideboo k_051207final.pdf.
- United States Army Corps of Engineers. 2012a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region Version 2.0, ed. J. F. Berkowitz, J. S. Wakeley, R. W. Lichvar, C. V. Noble. ERDC/EL TR-12-9. Vicksburg, MS: U.S. Army Engineer Research Development Center.

- United States Army Corps of Engineers. 2012b. Definitions of Terms. [Online] URL: http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/NWP_qa_16feb2011.pdf. Accessed June 19, 2013.
- United States Geological Survey. 2013. Fairview, Pennsylvania. 7.5-Minute Quadrangle (1:24,000).
- United States Geological Survey. 2013. Albion, Pennsylvania. 7.5-Minute Quadrangle (1:24,000).
- Wetland Training Institute, Inc. 2011. Pocket Guide to Hydric Soil Field Indicators v. 7.0. Robert J. Pierce (ed.). Wetland Training Institute, Inc., Glenwood, NM.

Appendix A Figures Project Location Map Resource Map





---- (5)----- (6

LAKE ERIE CONNECTOR PROJECT

ERIE COUNTY, PENNSYLVANIA

See Page



PEM

Wetland

Pond

River | Stream



Cable Route LOD

Construction Laydown LOD

Proposed Converter Station Site

Map information was compiled from the best available public sources. No warranty is made for its accuracy and completeness.





Local Road

Contour (10ft.)

PASDA River | Stream

----- Railroad



LAKE ERIE CONNECTOR PROJECT

ERIE COUNTY, PENNSYLVANIA

See Page 1



PSS

PFO

PEM

Upland

Wetland

Pond

River | Stream

State Route

Local Road

Contour (10ft.)

----- Railroad

Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd

Proposed Underwater Cable Route

Cable Route LOD

Construction Laydown LOD

Proposed Converter Station Site

Map information was compiled from the best available public sources. No warranty is made for its accuracy and completeness.







LAKE ERIE CONNECTOR PROJECT

ERIE COUNTY, PENNSYLVANIA





See Page

Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd



Page



-(4) - (5) - (6)

LAKE ERIE CONNECTOR PROJECT

ERIE COUNTY, PENNSYLVANIA

See Page



PEM

River | Stream

Pond

Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd

Construction Laydown LOD

Proposed Converter Station Site

Map information was compiled from the best available public sources. No warranty is made for its accuracy and completeness.



Page 4 of 14



Contour (10ft.)



LAKE ERIE CONNECTOR PROJECT ERIE COUNTY, PENNSYLVANIA

COUNTY, PENNSTLVAI

See Page







LAKE ERIE CONNECTOR PROJECT

ERIE COUNTY, PENNSYLVANIA





Document Path: N:\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd



e Page


ERIE COUNTY, PENNSYLVANIA

See Page



PEM

River | Stream

Pond

Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd

Construction Laydown LOD

Proposed Converter Station Site

Map information was compiled from the best available public sources. No warranty is made for its accuracy and completeness.





Contour (10ft.)



ERIE COUNTY, PENNSYLVANIA

See Page 7









ERIE COUNTY, PENNSYLVANIA

See Page









ERIE COUNTY, PENNSYLVANIA

See Page



See Page 11



Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd







ERIE COUNTY, PENNSYLVANIA

See Page



FSS

12



ERIE COUNTY, PENNSYLVANIA

See Page



PSS Upland Proposed Underwater Cable Route PFO Cable Route LOD Wetland PEM Construction Laydown LOD River | Stream Proposed Converter Station Site Pond Map information was compiled from the best available public sources. No warranty is made for its accuracy and completeness. Document Path: N:\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd





State Route

Local Road

Contour (10ft.)

Railroad



ERIE COUNTY, PENNSYLVANIA



Document Path: N.\GIS2\Projects\Lake_Erie_Power_Corporation\211948_SubseaCable_SM_Task1\Map_Docs\Final\Environmental_Reports\Wetland_Waterbodies\LEPC_Appendix_A_EA_Alignment_Map_20160114.mxd





ERIE COUNTY, PENNSYLVANIA







Appendix B Photographs of Wetlands and Waterbodies

Wetland Photographic Log

Client Name:		Site Location: Lake Erie Connector Project			Project No.	
ITC Lake Erie	Connector LLC	2		Site Location. Lake the connector Project		
Photo No.	Date:			1.000		
525	8/4/14				A CONTRACTOR	
Direction Ph	oto Taken:				Contraction of the second	
North						
Description:						
WPA-KAS-00	1					
Forested						

Photo No.	Date:	
526	8/4/14	
Direction Pho	oto Taken:	AD SOLUTION AND AND AND AND AND AND AND AND AND AN
South		
Description:		
WPA-KAS-002	1	
Forested		

Client Name:				D · · ·	Project No.
ITC Lake Erie	Connector LLC	Site Locat	ion: Lake Erie Connecto	r Project	243732
Photo No.	Date:				
527	8/4/14		A CAL		
Direction Pho	oto Taken:				
West					
Description:					
WPA-KAS-002	2				
Emergent					
		OZO BALINI			



Client Name:			Project No.
ITC Lake Erie (Connector LLC	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
551	8/6/14		
Direction Pho	to Taken:		
West			
Description:			
WPA-KAS-004	Ļ		
Forested		Sector A the	
		CORE AND AND AND A	



Client Name:			Project No.
ITC Lake Erie	Connector LLC	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
587	8/7/14		
Direction Pho	oto Taken:		
North			
Description:			
WPA-KAS-012	2		
Forested			



Client Name:				Project No.
ITC Lake Erie	Connector LLC	Si	te Location: Lake Erie Connector Project	243732
Photo No.	Date:			
0014	9/28/15			1
Direction Pho	oto Taken:			
North				
Description:			The superior of the state of the second state	
WPA-KAS-018	3			
Emergent				
		A A A A A A		
				E.
		eropethy and sought Address to		







Client Name	:	Site Leastien: Lake Frie Connect	Project No.
ITC Lake Erie Connector LLC		Site Location: Lake Ene Connect	243732
Photo No.	Date:		
742	12/22/14		
Direction Ph	oto Taken:		
East			
Description:			
WPA-KAS-02	8		
Forested		Ward and the second	



Client Name:				Project No.
ITC Lake Erie C	Connector LLC	2	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:	NAMA		
741	12/22/14			
Direction Pho	to Taken:			
South				
Description:			A Passing	
WPA-KAS-028				
Emergent and	Scrub	14	INTERNAL PLANE AND	
Shrub		AP - E		
		Service and the		



Client Name:			Site Lesstion Lake Frie Connector Project	Project No.
ITC Lake Erie (Connector LL	C	Site Location: Lake Ene Connector Project	243732
Photo No.	Date:			
693	11/5/14		A CARLEN MA	
Direction Pho	to Taken:			
East		AT ALL		
Description:				
WPA-KAS-029)	TANK T		
Scrub Shrub				
		(A) States		



Client Name:				Project No.
ITC Lake Erie Connector LLC		2	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:	1 Male	23 WAAA	
696	11/5/14			
Direction Pho	to Taken:	ANTESS		
West		And A		
Description:				
WPA-KAS-030)	N the second	American and a second	
Emergent				
		a participant		







Client Name:			Site Location: Lake Eric Connector Project	Project No.
ITC Lake Erie C	Connector LLC		Site Location. Lake the connector Project	243732
Photo No.	Date:	North Martin		
701	11/5/14			
Direction Pho	to Taken:			
East			A COMPANY AND A CO	
Description:			AND	
WPA-KAS-032				
Emergent				







Client Name:				Project No.
ITC Lake Erie C	ITC Lake Erie Connector LLC		Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			L
711	11/6/14			
Direction Pho	to Taken:	Stelevin and		
East				
Description:				
WPA-KAS-035				
Emergent				







Client Name:			Project No.
ITC Lake Erie	Connector LL	C Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
725	11/6/14		
Direction Pho	oto Taken:	- A Real House and the second and the	
West			
Description:			
WPA-KAS-03	7		
Emergent			











Client Name:		Site Location:	ake Frie Connector Project	Project No.
ITC Lake Erie	Connector LLC			243732
Photo No.	Date:			
0010	9/28/15			
Direction Pho	oto Taken:			
Southeast		THE REAL PROPERTY.	THURSDAY AND THE SHE	
Description:		See Start 12 14 14 19		
WPA-KAS-040)			
Emergent				

Stream Photographic Log

Client Name:			Site Location: Lake Erie Connector Project	Project No.
		-		2-3752
Photo No.	Date:			
533	8/4/14			
Direction Ph	oto Taken:			
South				
Description:				2
SPA-KAS-001				
Upstream				2

	Photo No.	Date:		The second		
	534	8/4/14		A.		
	Direction Pho	oto Taken:				
	West					
	Description:		-			
SPA-KAS-001					and the state of t	
Downstream					The l	
			NA IN	A PARA	Car Stat	407

Client Name:			Project No.
ITC Lake Erie	Connector LLC	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
541	8/5/14		
Direction Pho	oto Taken:		
South			
Description:			
SPA-KAS-002			
Upstream			



Client Name	:		Project No.
ITC Lake Erie Connector LLC		Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
547	8/6/14		
Direction Ph	oto Taken:		
East			
Description:	:		
SPA-KAS-004	4		
Upstream			



Client Name	:		Project No.
ITC Lake Erie	Connector LL	C Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		
577	8/6/14		
Direction Ph	oto Taken:		
East			
Description:			
SPA-KAS-005	i		
Upstream			



Client Name:		Site Location, Lake Frie Connector Dreject	Project No.
ITC Lake Erie	Connector LLC	C	243732
Photo No.	Date:		
550	8/6/14		
Direction Pho	oto Taken:		
West			
Description:			
SPA-KAS-006			
Upstream			



Client Name:				Project No.
ITC Lake Erie Connector LLC		c	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:		the second second	
690	11/5/14			
Direction Pho	oto Taken:			
West				
Description:				
SPA-KAS-016				
Upstream				










Client Name:			Site Lessting, Lake Frie Connector Project	Project No.
ITC Lake Erie (Connector LLC		Site Location: Lake the Connector Project	243732
Photo No.	Date:			
709	11/5/14			
Direction Pho	to Taken:			
West		71 - 151		
Description:				
SPA-KAS-020			Men and All	
Downstream				
			5 - 10 F + 17 5	



Client Name:				Project No.
ITC Lake Erie	Connector LL	с	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			
714	11/5/14			
Direction Pho	to Taken:			
Southwest				
Description:				
SPA-KAS-021				
Downstream				



FSS





Client Name:				Project No.
ITC Lake Erie (Connector LL	C	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			1
717	11/6/14			
Direction Pho	to Taken:			
South				
Description:				
SPA-KAS-023				
Downstream				



Client Name:				Project No.
ITC Lake Erie	Connector LL	с	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			I
719	11/6/14			
Direction Pho	oto Taken:			
Southeast				
Description:				
SPA-KAS-024				
Downstream				
		S- 1/2		



Client Name:				Project No.
ITC Lake Erie (Connector LLC	2	Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			1
724	11/6/14			
Direction Pho	to Taken:			
Northeast				
Description:				
SPA-KAS-025				
Downstream				



FSS









FSS





FSS





Client Name:			Cite Leasting Laber Frie Comparison Dusing t	Project No.
ITC Lake Erie	Connector LLC		Site Location: Lake Erie Connector Project	243732
Photo No.	Date:			I
823	04/15/15			
Direction Pho	to Taken:	七世情		
Southeast				
Description:				
SPA-KAS-031			A Company Steel 2 2	
Upstream				



Appendix C USACE Wetland Determination Data Forms

WETLAND DETERMINATION DATA FOR	M – Northcentral and Northeast Region
Project/Site: (MCU) ROUT (FR. City/C	county: EME CO Sampling Date
Applicant/Owner:	State: A Sampling Point: WA AS-OU
Investigator(s): XAS MCC Section	n Township Range: W PISS IN DE
Landform (billelone terrace etc.): VDVo 0	ief (conceve convex none): COV (Slope (%): O
Schessien (PD - MI DA); P Lot UZ (2000)	Long: -80, 31827 - Dotum: AD83
Subregion (LRR or MLRA): Lat: Lat:	
Soil Map Unit Name: 120 mgan Structure	NVVI classification: 1 · O
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil/_, or Hydrology // naturally problema	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID: UPA-(AS-O)
Remarks: (Explain alternative procedures here or in a separate report.)	
WPA-IAS-001	
PFD	
Located next to Lake Ene noon	connectanto SPA-145-001
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphere	as on Living Roots (C3) <u>Stunted or Stressed Plants (D1)</u>
Algal Mat or Crust (B4) Recent Iron Reduction	\overline{X} Geomorphic Position (D2)
Iron Deposits (B5)	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	narks) X Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes X No Depth (inches): 10	
Saturation Present? Yes X No Depth (inches):	Surfay Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
NON	
Remarks:	
none	
×.	10
	126

US Army Corps of Engineers

AJG

Northcentral and Northeast Region - Version 2.0

VEGETATION – Use scientific names of plants.

UPA-145-80	
Sampling Point:	

2/71	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	% Cover	Species? Status	Number of Dominant Species
1. PODULUS altolaus	25	LEAC	That Are OBL, FACW, or FAC:
al alimines in large	TD	Y VAI	
2.00005 1000100	10	1	Total Number of Dominant
3			Species Across All Strata: (B)
.4			That are OBL FACIAL as FAC:
5			That Are OBL, FACVV, or FAC: (A/B)
0			
0			Prevalence Index worksheet:
7.			Total % Cover of: Multiply by:
	35	- Total Cover	OBL species x1 =
E.		- Total Cover	
Sapling/Shrub Stratum (Plot size:	\sim	VI MART	FACW species x 2 =
Indian renzon	14)	1 HEN	FAC species x 3 =
1. CIVELVA REALICED	10		
2.			
			UPL species x 5 =
3		·	Column Totals: (A) (B)
4.			
	-		Prevalence index = B/A =
5			
6			Hydrophytic Vegetation Indicators:
			1 - Ranid Test for Hydrophytic Vegetation
7			
-	41)	= Total Cover	2 - Dominance Test is >50%
-1			3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)		11 (1-)	4 - Morphological Adaptations ¹ (Provide supporting
1 Imagations Morphers	K	Y FACL	data in Remarks or on a separate sheet)
Cabel & Carrillelly	10	V Curry	
2 MOURA SUBIDIE	LS_	1_thu	Problematic Hydrophytic Vegetation (Explain)
· Drillin marun willow	46	NI OPJ	-Indicators of bydric call and wetland bydrology must
3. CONCINCTONIC BILLION	17	TV FAC	bo present unless disturbed or problematic
4. TONICOUNDAND VOCUUS	10	1 HAC	be present, unless distanced of problematic.
-CONDARD MICOSA	6	N FW	Definitions of Vegetation Strata:
5. Schanger V Verpisa			
6.			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
	·		at breast height (DBH), regardless of height.
7			
8.	vi	· · · · · · · · · · · · · · · · · · ·	Sapling/shrub – Woody plants less than 3 in. DBH
			and greater than or equal to 3.28 ft (1 m) tall.
9	à it		
10			Herb – All herbaceous (non-woody) plants, regardless of
	5		size, and woody plants less than 5.26 it tan.
11			Woody vines - All woody vines greater than 3.28 ft in
12	2		height
109er	50		noiBra
201	<u> </u>	= Total Cover	A CONTRACTOR OF A CONTRACTOR
Woody Vine Stratum (Plot size:			
A be O			
2			Hydrophytic
Z	-		Vegetation
3			Present? Yes No
4			
T			
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		5
1	,		
204			
			1000
			(B)
			(B)

SOIL								Sampling Point:
Profile Des	cription: (Describe	to the dep	th needed to docur	nent the i	ndicator	or confirm	the absence of indic	ators.)
Depth	Matrix	-	Redo	x Features	5			
(inches)	Color (moist)	%	Color (moist)	%		Loc ²		Remarks
AD	25425	90 2	JOUR 410	10	D	PI	Dam	
010	FUD 66	1.0	ACTIVE X	10			Sourch	
North 1	DACIT	<u> </u>		21			<u></u>	
	7.54R91	417						
	<u> </u>						10	
				<u> </u>				
	1							2
								يۇر. 1
				о———з			· · · · · · · · · · · · · · · · · · ·	
					())			
	-						/i	
1-Turnet C=C	appoint ation D-Do		Deduced Metrix M		Cand Ca			voliping MaMatrix
Hydric Soil	Indicators:		-Reduced Matrix, Ma	5-Waskeu	Sanu Gi	dii15.	Indicators for Prot	plematic Hydric Soils ³
Listand	(44)		Debruelue Deler	Curfage	(CO) (I DI		2 om Muck (A1)	
Histosol	ripodon (A2)		Polyvalue Below	v Sunace	(56) (LRI	К ,	2 CITI IVIUCK (A I	U) (LKK K, L, MLKA 149D)
Black H	istic (A3)		Thin Dark Surfa	(SQ) (I		RA 1498)	5 cm Mucky Pe	(A I O) (ERR R, E, R)
	an Sulfide (A4)		[namy Mucky M	/lineral (F1		(1430) (1)	Dark Surface (S	S7) (IRR K. I. M)
Stratifie	d Lavers (A5)		Loamy Gleved	Matrix (F2))	·; =/	Polyvalue Belo	w Surface (S8) (LRR K. L)
Deplete	d Below Dark Surfac	ce (A11)	Control Contro	(F3)	,		Thin Dark Surfa	ace (S9) (LRR K. L)
Thick Di	ark Surface (A12)		Redox Dark Su	face (F6)			Iron-Manganes	e Masses (F12) (LRR K, L, R)
Sandy N	/ucky Mineral (S1)		Depleted Dark \$	Surface (F	7)		Piedmont Floor	dplain Soils (F19) (MLRA 1498
Sandy C	Gleyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy F	Redox (S5)						Red Parent Ma	terial (F21)
Stripped	I Matrix (S6)						Very Shallow D	Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, I	MLRA 149E	3)				Other (Explain	in Remarks)
³ Indicators o	f hydrophytic vegeta	tion and we	tland hydrology mus	t be prese	ent, unless	s disturbed	or problematic.	
Restrictive	Layer (if observed)	A (
Type:	none s	me						X
Depth (in	ches):	_					Hydric Soil Present	? Yes No
Remarks:								
							S. 1	

WETLAND DETERMINATION DATA FO	RM – Northcentral and Northeast Region
Project/Site: OKOGW POW W/ Citv/	Country NL (1) Samoling Date: SHILL
Applicant/Owner ITC Haldlings	State: A Sampling Point: \V/ - (2)
Investigator(s):	ion Townshin Range: VD P/SS IDPA-
Landrorm (millislope, terrace, etc.): <u>Y (770</u>	Rel (concave, convex, none).
Subregion (LRR or MLRA):	Long: Datum: Datum:
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes <u>V</u> No
Are Vegetation, Soil or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No 父	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
DP - A < T	
UPG-VAS-OUL	
- •	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	es (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)) Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Oc	dor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2)Oxidized Rhizosphere	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce Presence of Reduce Presence of Reduce	a Iron (C4) Sturiled of Stressed Plants (D1)
Iron Denosits (B5) Thin Muck Surface (C7) Shallow Aguitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No</u> Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches):	Wetland Hydrology Present? Yes No 👗
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
VON	
Remarks:	
1000	
Y BY \1	
·	

VEGETATION - Use scientific names of plants,

VPI-1AS-	001
Sampling Point:	1

201	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1. INNUS SENTINA	20	- THEU	That Are OBL, FACW, or FAC: (A)
2. assativas albidum	4	1 thu	Total Number of Dominant
3.		· · · · · · · · · · · · · · · · · · ·	Species Across All Strata: (B)
4	-		Percent of Deminant Species
			That Are OBL, FACW, or FAC:
5			
		·	Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	50	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 5	-		FACW species x 2 =
Visco multifiana	212	V IDI	FAC species x 3 =
L'undertra una E allande una	15	Y IDI	FACU species x 4 =
2. Margonnin Dalbonian	10	1	UPL species x 5 =
3			Column Totals: (A) (B)
4			
5.		· · · · · · · · · · · · · · · · · · ·	Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
	; 		1 - Rapid Test for Hydrophytic Vegetation
7	20		2 - Dominance Test is >50%
<u> </u>	22	= Total Cover	$3 - \text{Prevalence Index is } \le 3 0^1$
Herb Stratum (Plot size:)	0		4 - Morphological Adaptations ¹ (Provide supporting
1. Solvago nacha	$\langle 1 \rangle$	N. FAC	data in Remarks or on a separate sheet)
2 COUNCIL ECONOCILIADURA	LOC	Y IDI	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carry for horizon (C			
3		·	Indicators of hydric soil and wetland hydrology must
4	<u> </u>		
5			Definitions of Vegetation Strata:
6.			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	$y_i = -\beta$		at breast height (DBH), regardless of height.
			Sanling/shruh – Woody plants less than 3 in DBH
8			and greater than or equal to 3.28 ft (1 m) tall.
9			
<u> </u>	-		There All hashes and (non-month) shorts secondlass of
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11	_		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11 12.	_		 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height
10 11 12			 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
۰ 10 11 12 ۲۵ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰ ۲۰. ۲۰. ۲۰. ۲۰. ۲۰. ۲۰. ۲۰. ۲۰.	70	= Total Cover	 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
10		= Total Cover	 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
10	70	= Total Cover	 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
10	70	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
10 11 12 <u>Woody Vine Stratum</u> (Plot size: <u>30</u>) 1 1 2 Pav Henoclssus guinguetata 3. Vitts VIDDura	70	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10 11 12 <u>Woody Vine Stratum</u> (Plot size: <u></u>) 1 <u>1</u>) 1 <u>2</u> <u>Pav Hienocissus</u> puinguetata <u>3</u> <u>4</u>	70 40 40 40 40	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10 11 12 <u>Woody Vine Stratum</u> (Plot size: <u>20</u>) 1) 1 2 2 2 3 VITIS <u>VIDENA</u> 4	172 172 172 172 172 172 172 172 172 172	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10 11 12 <u>Woody Vine Stratum</u> (Plot size:) 1 <u>Pav Henoclssus</u> <u>pungetata</u> 3 <u>Vitts</u> <u>VIUpna</u> 4	170 190 190 190 190 190 190	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 10 95 sheet.)	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 10 95 sheet.)	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 40 40 40 40 40 40 40 40 40 40 40	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 40 40 40 40 40 40 40 40 40 40 40	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 40 40 40 40 40 40 40 40 40 40 40	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 10 95 sheet.)	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 10 95 sheet.)	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	70 40 40 40 40 40 40 40 40 40 40 40 40 40	= Total Cover	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No

0

SOIL						Sampling Poin	45-001
Profile Desc	ription: (Describe	to the dep	oth needed to document the indicator or con	nfirm the abso	ence of indicato	rs.)	
Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc	2 Textu	re	Remarks	
0-10	1218414	125		100	\sim		
<u> </u>					·		
	-						
		·					
	· · · · · · · · · · · · · · · · · · ·						
		·					
		·	· · ·				
					3		
Turner C-Ca		Lotion DM		21.00	ation: DI =Dara I	ining M-Metrix	
Hydric Soil I	Indicators:	ieuon, Rivi	-Reduced Mainx, MS-Masked Sand Grains.	Indica	ators for Probler	natic Hydric So	ils ³ .
Histopol	(44)		Polygolus Polow Surface (SS) (LDD D	naice	om Musk (A10) (A 440D\
Listic En	(AT) vipeden (A2)		Polyvalue Below Surface (So) (LKK K,	— ²	cm Muck (ATO) (LKK K, L, WILK	1 D\
Black His	stic (A3)		Thin Dark Surface (S9) (I RR R MIRA 1	49B) 5	cm Mucky Peat (or Peat (S3) /I R	
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (E1) (LRR K. L)		ark Surface (S7)	(LRR K. L. M)	, _,,
Stratified	Lavers (A5)		Loamy Gleved Matrix (F2)		olvvalue Below S	urface (S8) (LR	R K. L)
Depleted	Below Dark Surface	e (A11)	Depleted Matrix (F3)	T	hin Dark Surface	(S9) (LRR K, L)	,,
Thick Da	rk Surface (A12)	. ,	Redox Dark Surface (F6)	In	on-Manganese N	lasses (F12) (LF	RR K, L, R)
Sandy M	lucky Mineral (S1)		Depleted Dark Surface (F7)	P	iedmont Floodpla	in Soils (F19) (N	(LRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depressions (F8)	N	lesic Spodic (TA6	6) (MLRA 144A,	145, 149B)
Sandy R	edox (S5)			R	ed Parent Materi	al (F21)	
Stripped	Matrix (S6)			v	ery Shallow Dark	Surface (TF12)	
Dark Sur	face (S7) (LRR R, N	ILRA 149	3)	0	ther (Explain in F	Remarks)	
³ Indicators of	hydrophytic vegetat	ion and we	etland hydrology must be present, unless distur	rbed or proble	matic.		
Restrictive L	ayer (if observed):						
Type:	Ime						10
Depth (inc	hes):			Hydric	Soil Present?	Yes	No <u>X</u>
Remarks:							
				527			

WETL	AND DETERMINATION DATA FOR	RM – Northcentral a	and Northeast Region
Project/Site: Fine RD	(4) (6) City/C	County: SNR (6	Sampling Date 372114
Applicant/Owner TTC -	totalm		State: PA Sampling Point: URA - 002 A
Investigator(s):	ACC Section	on, Township, Range:	ID PLSS IN 174-
Landform (hillslope, terrace, et	c.): VON 0	ief (concave, convex, no	ne): <u>MDNC</u> Slope (%):
Subregion (LRR or MLRA):	Lat: 42.00629	Long: <u></u>	D. 3977 0-1 Datum NAD 8-3
Soil Map Unit Name: Min	no five sand, loam la	- Gogs WILE Sittle	01/NWI classification:FO
Are climatic / hydrologic conditi	ions on the site typical for this time of year? Y	es 🗙 No	(If no, explain in Remarks.)
Are Vegetation N. Soil	N. or Hydrology N significantly distur	bed? Are "Normal	Circumstances" present? Yes V No
Are Vegetation, Soil	M, or Hydrology Mnaturally problems	atic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDING	GS – Attach site map showing sam	pling point location	ons, transects, important features, etc.
Hudrophytic Vegetation Press		Is the Sampled Area	
Hydric Soil Present?	Yes No	within a Wetland?	Yes No
Wetland Hydrology Present?	Yes No	If ves, optional Wetland	Site ID: (VPA-V4S-002
Remarks: (Explain alternative	e procedures here or in a separate report.)		
LEPH-VAS-	ODA		
PED	v		
HYDROLOGY			
Wetland Hydrology Indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	🔀 Water-Stained Leave	s (B9)	X Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od	or (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	X Oxidized Rhizosphere	es on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced	I Iron (C4)	Stunted of Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reductio		Geomorphic Position (D2)
Iron Deposits (B5)	inin Muck Surface (C	o/) marka)	Shallow Aquitard (D3) Microtonographic Poliof (D4)
Sparsely Vegetated Con	cave Surface (B8)	naiks)	EAC-Neutral Test (D5)
Field Observations:		/	
Surface Water Present?	Yes No Depth (inches):	NOU	
Water Table Present?	Yes X No Depth (inches): 4		
Saturation Present?	Yes 🔽 No Depth (inches): 😒	WFace Wetland H	Hydrology Present? Yes No
Describe Recorded Data (stre	eam gauge, monitoring well, aerial photos, pre	vious inspections), if ava	ailable:
VONE			
Remarks:			
1			

VEGETATION - Use scientific names of plants.

SA MA	1 com A
WHY	BUZA
Sampling Point:	L.

VEGETATION - Use scientific names of plants.			Sampling Politic.
201	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1. traxinus pennsylvanica	20	4 FTHCU	That Are OBL, FACW, or FAC: (A)
2 towner altodes	20	Y FAC.	
alliming where	TO	NEAF	Species Across All Strata: (B)
3.01110 2 1001 00	10		
4			Percent of Dominant Species
5			
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	Ton	= Total Cover	OBL species x 1 =
Saulias/Shrub Shatum (Distairs: 15	<u>+0</u>		FACW species x 2 =
Saping/Silub Stratum (Plot size. 10	FA	U CAGU	FAC species x 3 =
1. Maina anoin	<u> </u>	- HY	FACU species x4 =
2. COMICE Va Japonica	10	TAUX	LIPL species x 5 =
3. VOSO MUTHDA	_5_	N UPL	Column Totals: (A) (B)
4.			
5.			Prevalence Index = B/A =
6.			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
·	T	Tatal Cause	_X 2 - Dominance Test is >50%
5'	_/S_	= Total Cover	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: ())	22	11 marin	4 - Morphological Adaptations ¹ (Provide supporting
1. Imparting capense	20	Y HAR W	data in Remarks or on a separate sheet)
2. Another sensibility -	0	N HACK	Problematic Hydrophytic Vegetation ¹ (Explain)
3 OWEV	10	Ŋ	¹ Indicators of hydric soil and wetland hydrology must
4 Olicena Starta	20	Y OBL	be present, unless disturbed or problematic.
5		_1	Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
			Saoling/shrub – Woody plants less than 3 in. DBH
o		·	and greater than or equal to 3,28 ft (1 m) tall.
9			Herb - All herbaceous (non-woody) plants, regardless of
10	• •		size, and woody plants less than 3.28 ft tall.
10	<u> </u>		Woody vines - All woody vines greater than 3.28 ft in
<u></u>	$\left(\right)$		height.
-10'		= Total Cover	
Woody Vine Stratum (Plot size:)	10	V Ch	
1. IDVICAUNAWA VAOLIANS			
2			Vegetation
3.			Present? Yes X No
1			,
T	N	- Total Cavor	
Remarks: (Include photo numbers here or on a consider	theat)		
remarks. (include photo numbers here or on a separate s	sileet.)		

S	0	I	L
_	_		

Matrix Redox Features Color (moist) % Y=0 IOVR ^{3/4}	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=M ydric Soil Indicators: Indicators for Problematic Hydrid	atrix. c Soils ³ :
	MLRA 149B) RR K, L, R) (LRR K, L, R) M) (LRR K, L) (, L)) (LRR K, L, R) 9) (MLRA 1498 H4A, 145, 1498
Type: Tock	\times
Depth (inches): 0 W Yes	No

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: <u>Sector</u> City/C Applicant/Owner: <u>City/C</u> Investigator(s): <u>Sector</u> Sector Landform (hillslope, terrace, etc.): <u>NDM</u> Local reli Subregion (LRR or MLRA): <u>Lat: L12, D1059</u> Soil Map Unit Name: <u>City L0</u> , <u>MMA</u> Are climatic / hydrologic conditions on the site typical for this time of year? Y Are Vegetation <u>M</u> , Soil <u>M</u> , or Hydrology significantly disturt Are Vegetation <u>N</u> , Soil <u>M</u> , or Hydrology naturally problema	State Sampling Date: Sampling Point: State Sampling Point: Sampling Point: State Sampling Point: State State State State State No State State No State State No No State No No State State No
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate report.) FEM WHA-VAS-000	Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID: UPA-VAS-OVE
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) X Water-Stained Leave High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Ode Drift Deposits (B3) Presence of Reduced Algal Mat or Crust (B4) Recent Iron Reduction Iron Deposits (B5) Thin Muck Surface (C Sparsely Vegetated Concave Surface (B8) Difference	s (B9) Surface Soil Cracks (B6) > Drainage Patterns (B10)
Field Observations: Surface Water Present? Yes Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	Wetland Hydrology Present? Yes No
Remarks: WM	

VEGETATION – Use scientific names of plants.

1.011-1115	~77
WITTS	a
Sampling Point:	-

	Absolute	Dominant Indicator	Derrigenes Test werkeheet
Tree Stratum (Plot size:)	% Cover	Species? Status	
1. Non-		·	That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3			
4			Percent of Dominant Species
5			
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species x 1 =
Sanling/Shruh Stratum (Plot size:			FACW species x 2 =
Saphily Shadow (Plot size.		Y ID	FAC species x 3 =
1. FOXX THUT HURL			FACU species x 4 =
2	. <u> </u>		UPL species x 5 =
3			Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
7.			1 - Rapid Test for Hydrophytic Vegetation
	<u>T</u>	= Total Cover	X 2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0 ¹
1 SCIVEDE CUDEMNIK	20	Y OR	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Eupatorium Der Fondtum	20	4 Arw	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Mentha Spilata	10	N FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Olyrenia strata	20	1 OPL	be present, unless disturbed or problematic.
5. Ovalla suspitts	$\left(O \right)$	· N FARW	Definitions of Vegetation Strata:
5 TUDM latifalia	15	N CB	Tree – Woody plants 3 in (7.6 cm) or more in diameter
7.			at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9		· · · · · · · · · · · · · · · · · · ·	and greater than or equal to 3.28 ft (1 m) tail.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11			Woody vines – All woody vines greater than 3.28 ft in
12			height.
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30)			
1 Nane			
		·	Hydrophytic //
2		·	Vegetation
3		·	Present? Yes No
4			
	~~~~	= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

.

1.9

#### 601

Profile Descr	intion: (Describe to	o the der	oth needed to docu	ment the	indicator	or confirm	the absence of ir	ndicator	rs.)	
Depth	Matrix	o ule ueț	Put needed to docd	ov Feature		or commu		laioatoi	0.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
)-5	IOYP ?!	MD	2,5148	10	D	M	Orim			
6-17	10/122/	RE	D CTIP4/10	TE	0	И	linguno			
<u>sic</u>		00	ØNIE D	60		<u> </u>	TOWAY Z			
					• · · · · · · · · · · · · · · · · · · ·					
					·					
								_		
				-Maaka	d Sand Cr		² Location: Pl	=Pore	ining M=Matri	×
lvdric Soil In	dicators:		I-Reduced Matrix, IV	IS-Waske	u Sanu Gi	aii 15.	Indicators for	Problem	natic Hydric S	oils ³ :
Histosol (	A1)		Polyvalue Belo	w Surfac	e (S8) ( <b>LR</b>	RR,	2 cm Muck	(A10) (I	LRR K, L, MLR	RA 149B)
Histic Epi	pedon (A2)		MLRA 1498	<b>B</b> )			Coast Prai	rie Redo	x (A16) ( <b>LRR H</b>	K, L, R)
Black His	tic (A3)		Thin Dark Sur	face (S9)	(LRR R, M	LRA 149B)	5 cm Muck	y Peat o	or Peat (S3) (LF	RR K, L, R)
_ Hydrogen	Sulfide (A4)		Loamy Mucky	Mineral (F	-1) (LRR M	K, L)	Dark Surfa	ice (S7)	(LRR K, L, M)	
Stratified	Layers (A5)	(111)	Loamy Gleyed	Matrix (F	2)		Polyvalue I	Below S Surface	(SO) (I BB K I	<b>κκ κ, L</b> )
Depleted Thick Dar	Below Dark Surface	(ATT)	Redox Dark S	ix (F3) urface (F6			Iron-Manga	anese M	lasses (F12) (L	-/ .RR K. L. R)
Sandy Mu	ucky Mineral (S1)		Depleted Dark	Surface (	(F7)		Piedmont F	Floodpla	in Soils (F19) (	MLRA 149B)
Sandy Gl	eyed Matrix (S4)		Redox Depres	sions (F8	)		Mesic Spo	dic (TA6	6) (MLRA 144A	<b>, 145, 149B</b> )
Sandy Re	edox (S5)						Red Paren	t Materia	al (F21)	
Stripped M	Matrix (S6)		-				Very Shall	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
_ Dark Surf	ace (S7) (LRR R, MI	LRA 149	<b>B</b> )				Other (Exp	nain in R	(emarks)	
Indicators of I	hydrophytic vegetatic	on and w	etland hydrology mi	ist be pres	sent unles	s disturbed	or problematic.			
Restrictive La	ayer (if observed):						· · · · · · · · · · · · · · · · · · ·			
Type:			_							
Depth (incl	nes):						Hydric Soil Pre	sent?	Yes	No
emarks:										
andiks.										
									4	

WETLAND DETERMINATION DATA FOR	Image: A control and Northeast Region
Project/Site: Lala FILO, LOW W City/C	County: ENC CO Sampling Date: 8/6/14
Applicant/Owner: TTC	State: PA Sampling Point: WPA- 024
Investigator(s): VAS, M() Secti	on Township, Range: NO PLSS in PA
Landform (hillslope terrace etc): (10x0)	ief (concave, convex, none); NDNQ Slope (%);
Subracion (PP or MI PA):	Long = 30,38275 Datum NAOB
Sublegion (LEVA) MAA THA SUB FrA PUB AA	HVB 12 PHB ABABANAN classification PED
Soli Map Onit Name:	
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation 10, Soil 10, or Hydrology 10, significantly distui	bed? Are Normal Circumstances present? Tes No
Are Vegetation, Soil _10, or Hydrology10_ naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes <u>X</u> No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
WA-45-004	Hand a accounter of
SPA-1/AS-000 FLOWS THUDUM	the welland a connects it
ha the attack of the	in ret
to the only sive of the	VOOD
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	es (B9) X Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	<u>X</u> Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Lable (C2)
Water Marks (B1)     Hydrogen Sulfide Od     Ovidized Bbizesebe	Ior (C1) Crayiisri Burrows (C6)
Critic Deposits (B2) Critical Contract	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>1</u> No Depth (inches):	D.SUMBE
Water Table Present? Yes Yes No Depth (inches): ()	
Saturation Present? Yes X No Depth (inches):	C SUP & Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
NONQ	
Remarks:	
NON?	

#

VEGETATION - Use scientific names of plants

WA-VAS-ML	ļ
Sampling Point:	١

	S			
Trace Street up (Blat sizes 3D)	Absolute	Dominant Species2	Indicator	Dominance Test worksheet:
Area of an Area and a state of the state of	7º Cover	<u>Species r</u>	<u>CIA</u>	Number of Dominant Species
$1. \frac{\pi \rho \nu}{1 \rho} = \frac{1}{1 \rho} \frac{1}{\rho} \frac{1}{\rho}$	20		- CA	That Are OBL, FACW, or FAC: (A)
2. UIMOS WORK	20		110	Total Number of Dominant
3. Chus Copallinum	10	N	. UPL	Species Across All Strata: (B)
4. PODULIS deltardos	15	4	FAC	Percent of Dominant Species
5. Tiliaameriana	10_	N	Acu	That Are OBL, FACW, or FAC:
6.			(	Dravelance Index workshoet:
7				Total % Cover of: Multiply by:
·>	T	= Total Ca		
10-1		= TOTAL COV	/ei	
Sapling/Shrub Stratum (Plot size: (S	20	Y	CAUD	FAC species $x_3 =$
1. CONDES amonom	20	-	FILW	FACU species $x4 =$
2. YOSA MULTIHORA	<u> </u>		EACLA	UPL species x 5 =
3. Sambucus nigra	5		Act	Column Totals: (A) (B)
4. Undera lashtisin	10	N	HAKW	
5				Prevalence Index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
·	55	- Total Car		∠ 2 - Dominance Test is >50%
5'	-05-	= Total Cov	/ei	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	20	ST.	TAC 1	4 - Morphological Adaptations ¹ (Provide supporting
1. IMPATEVIS COPORTS	22-	1	FACE	data in Remarks or on a separate sheet)
2. Toxicorlenavor manan		N	HAC	Problematic Hydrophytic Vegetation' (Explain)
3. Ectrophym purpuralm	10		+AC	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic,
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
		-		Sapling/shrub – Woody plants less than 3 in. DBH
8		-	· · · · · · · ·	and greater than or equal to 3.28 ft (1 m) tall.
9			· ·	Herb - All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11	<u> </u>		· ·	Woody vines – All woody vines greater than 3.28 ft in
12				height.
	55	= Total Cov	ver	
Woody Vine Stratum (Plot size: )				
1. Vitis laborsa	25	10	FACU	
2				Hydrophytic
۵ ۵		<u></u>	·	Present? Yes No
3				
4	30			
	28	= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sneet.)			

SOI	Ł
-----	---

1. DIA	145-501
Sampling	Point:
Sampling	Found

Profile Desc	ription: (Describe	to the dep	th needed to docur	ment the i	ndicator	or confirm	the absence of	of indicators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 10	WHR34	(d)	75NP5/	20			Iman	
	1.2 112 6/2		1 1 0	<u> </u>				
	1012 13	al						
		·						
								· · · · · · · · · · · · · · · · · · ·
L								
		·	·		·			
								· · · · · · · · · · · · · · · · · · ·
17.00			Deduced Making M	C-Maskad	Cand Ca		² l contion:	PL-Boro Liping M-Matrix
Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, IVI	S=Iviasked	Sand Gra	ains.	Indicators	for Problematic Hydric Soils ³ :
	indicators:			0	(00) (I <b>D</b>		and Catolis	
Histosol	(A1)		Polyvalue Belo	w Surrace	(58) (L <b>K</b> F	КΚ,		
Histic Ep	pipedon (A2)		MLRA 149B	) 200 (E0) (L		DA 1400	Coast P	ucky Peat or Peat (S3) (I PP K I P)
Black Hi	SIIC (A3) In Sulfide (A4)		Thin Dark Suna	ACE (39) (L Mineral /E1		LKA 149D	) 5 cm M Dark Si	Inface (S7) (IRR K   M)
Flydroge Stratifio			Loamy Gleved	Matrix (F2)		, L)	Daik of	ue Below Surface (S8) (I RR K. I.)
Stratilied	1 Below Dark Surface	- ∕∆11\ ⁻	Depleted Matrix	v (F3)	,		Thin Da	ark Surface (S9) (LRR K. L)
Depleted	ark Surface (A12)	5 (711)	Redox Dark Su	rface (F6)			Iron-Ma	anganese Masses (F12) (LRR K. L. R)
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leved Matrix (S4)		Redox Depress	sions (F8)	.,		Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	ledox (S5)						 Red Pa	rent Material (F21)
Stripped	Matrix (S6)						Very SI	nallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	ILRA 149E	3)				Other (	Explain in Remarks)
			,					
³ Indicators of	f hydrophytic vegetat	ion and we	tland hydrology mu	st be prese	nt, unless	s disturbed	or problematic	
Restrictive I	.ayer (if observed):	ř.						
Type:	Vode Int	st						X.
Depth (in	ches): 1010						Hvdric Soil	Present? Yes X No
Pomarka:								
Remarks:								

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region
Project/Site: (1/10 GM-P(1)) City/	Sampling Date 10114
	ound D4 Company Date
Applicant/Owner: <u>+ 1 C</u>	State: Pyt Sampling Point: DP4
Investigator(s): 1075, M (Construction Section	on, Township, Range: VIO 103511141
Landform (hillslope, terrace, etc.): YONC Local rel	ief (concave, convex, none): M() M() Slope (%): ()
Subregion (LRR or MLRA): Lat: Lat:	2 Long: <u>80.327678</u> Datum: AD 83
Soil Map Unit Name: MrA ThA End thA PhB trAt	NWI classification: VPC
Are climatic / hydrologic conditions on the site typical for this time of year? Y	'es X No (If no, explain in Remarks.)
Are Vegetation $M$ , Soil $M$ or Hydrology $M$ significantly distur	bed? Are "Normal Circumstances" present? Yes V No
Are Vegetation N Soil N or Hydrology N paturally problem	
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Y	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No >>	If yes, optional Wetland Site ID: UPC 009
Remarks: (Explain alternative procedures here or in a separate report.)	
LIDY - VAS-004	
UTC DISCONTROLLA	
Located in og tillo	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospher	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	n in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	narks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Vvater Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No $7 \sim$
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Pemarke'	
Novo	

L

VEGETATION - Use scientific names of plants.

Sampling Point:

2 - 1	Absolute	Dominant Indicator	Deminence Test werkshoet
Tree Stratum (Plot size: 30 )	% Cover	Species? Status	Dominance lest worksneet:
1 None			Number of Dominant Species
2			Total Number of Dominant
3			Species Across All Strata: (B)
4.			Percent of Dominant Species
	-		That Are OBL, FACW, or FAC: (A/B)
		· · · · · · · · · · · · · · · · · · ·	
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species x 1 =
101	-		
Sapling/Shrub Stratum (Plot size:)			
1NONO			FAC species X 3 =
2			FACU species x 4 =
0			UPL species x 5 =
3			Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
6.			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
<i>l</i>			2 - Dominance Test is >50%
		= Total Cover	$\frac{2}{2} = \frac{2}{2} = \frac{2}$
Herb Stratum (Plot size:)	12	ALITY	4 - Morphological Adaptations ¹ (Provide supporting
1. CICHOVIUM Intulas	10	UN UR	data in Remarks or on a separate sheet)
2. Dawcos canota	25	1 M	Problematic Hydrophytic Vegetation' (Explain)
3. Knolla What us	15	NEAC	¹ Indicators of hydric soil and wetland hydrology must
TVICALIUM NOT TRIOS	112	NEALU	be present, unless disturbed or problematic.
The Colleging Tradition	15	The Child	Definitions of Venetoties Strates
5. INGONOWI WORKD	10	Y MAL	Definitions of vegetation Strata.
6. Lollum perconne	18	N FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
		÷	Sanling/shrub – Woody plants less than 3 in DBH
8	-	· · · · · · · · · · · · · · · · · · ·	and greater than or equal to 3.28 ft (1 m) tall.
9			
10.			Herb – All herbaceous (non-woody) plants, regardless of
11			size, and woody plants less than 5.26 it tan.
			Woody vines - All woody vines greater than 3.28 ft in
12	100		height.
	10	= Total Cover	
Woody Vine Stratum (Plot size:			
1 NAMA 0			
			Hydrophytic
2		<u> </u>	Vegetation
3			Present? Yes No 🔨
4			
		Total Osura	
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

#### 601

ŝ

Depth (inches)       Matrix Color (moist)       Redox Features Color (moist)       I         D-5       IOHR44       IOHR444       IOHR444       IOHR444       IOHR444       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	vpe1         Loc2           P/	Texture R Dam Cayloam	emarks	
(inches)       Color (moist)       %       T         Color (moist)	ype'         Loc*           P/           P/	A contraction of the second se	emarks	
S=5       IONR 4       IO         S=12       IONR 4       IO         IONR 4       IO       IO         S=12       IONR 4       IO         IONR 4       IO       IO         IONR 4 </th <th>P/</th> <th>a cuy loa m</th> <th></th>	P/	a cuy loa m		
S-12       IOK4       QD       A, S \ K ''8       IO       I         S-12       IOK4       QD       A, S \ K ''8       IO       I         S-12       IOK4       QD       A, S \ K ''8       IO       I         S-12       IOK4       QD       A, S \ K ''8       IO       I         S-12       IOK4       QD       A, S \ K ''8       IO       I         S-12       IOK4       IOK4	) <u>P(_</u>			
Ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:         Histosol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)				
Ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:	nd Grains.			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:         Histosol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)	and Grains.			
'ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soll Indicators:	nd Grains.			
Sype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:         Histosol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)	nd Grains.			
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:	Ind Grains.	² l agotion: PI = Para Linin		
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:           Polyvalue Below Surface (S8          Histosol (A1)           Polyvalue Below Surface (S8          MLRA 149B)	nd Grains.	² l agotion: PI = Pare Linin		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:           Histosol (A1)           Polyvalue Below Surface (S8          Histic Epipedon (A2)       MLRA 149B)          Black Histic (A3)           Loamy Mucky Mineral (F1) (L	und Grains.			
'ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:	Ind Grains.	² l agotion: PI = Para Linin		
'ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:           Histosol (A1)           Histic Epipedon (A2)       MLRA 149B)          Black Histic (A3)        Thin Dark Surface (S9) (LRR          Hydrogen Sulfide (A4)        Loamy Mucky Mineral (F1) (L	and Grains.	² l agotion: PI = Paro Linin		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         lydric Soil Indicators:       Polyvalue Below Surface (S8         Histosol (A1)       Polyvalue Below Surface (S8         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (L	and Grains.	² l acation: BI =Bara Linin		
Fype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         lydric Soil Indicators:           Histosol (A1)           Histosol (A1)           Histic Epipedon (A2)       MLRA 149B)          Black Histic (A3)        Thin Dark Surface (S9) (LRR          Hydrogen Sulfide (A4)        Loamy Mucky Mineral (F1) (L	and Grains.	² l agation: Pl = Para Linin		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sa         ydric Soil Indicators:       Polyvalue Below Surface (S8         Histosol (A1)       Polyvalue Below Surface (S8         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (L	ind Grains.	21 apatian: DI = Dara Linin		
Iydric Soil Indicators:      Polyvalue Below Surface (S8        Histic Epipedon (A2)       MLRA 149B)        Black Histic (A3)      Thin Dark Surface (S9) (LRR        Hydrogen Sulfide (A4)      Loamy Mucky Mineral (F1) (L		Location. FL-Fore Limiti	g, M=Matrix.	
<ul> <li>Histosof (AT)</li> <li>Histic Epipedon (A2)</li> <li>Black Histic (A3)</li> <li>Hydrogen Sulfide (A4)</li> <li>Loamy Mucky Mineral (F1) (L</li> </ul>		Indicators for Problematic	C HYORIC SOIIS":	
Black Histic (A3) Thin Dark Surface (S9) (LRR Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (L	)) (LKK K,	Coast Prairie Redox (A	16) (LRR K, L, R)	
_ Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (L	R, MLRA 149B)	3) 5 cm Mucky Peat or Pe	at (S3) (LRR K, L, R)	
	Dark Surface (S7) (LRR K, L, M)			
_ Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F3)	anned Layers (A5) Loamy Gieyed Matrix (F2) Polyv			
Thick Dark Surface (A12) Redox Dark Surface (F6)		Iron-Manganese Masses (F12) (LRR K, L, R)		
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Gleyed Matrix (S4) Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
_ Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (F21) Verv Shallow Dark Surface (TF12)			
Dark Surface (S7) (LRR R, MLRA 149B)	Other (Explain in Rema	Other (Explain in Remarks)		
ndicators of hydrophytic vegetation and wetland hydrology must be present,	unless disturbed	d or problematic.		
Type:		N	× /	
Denth (inches):		Hydric Soil Present? Yes	s No	
emarks		injune contrictent.		

WETLAND DETERMINATION DAT	A FORM – Northcentral and Northeast Region
Project/Site: 1000 Fine (D)	_ City/County: Lene Sampling Dates 7114
Applicant/Owner:	State: PA Sampling Point: WPA-17
Investigator(s):ASMCC	Section, Township, Range: Mone in PA-
Landform (hillslope, terrace, etc.): None	ocal relief (concave, convex, none); MML Slope (%);
Subregion (LRR or MLRA) Lat: 4196	1778 Long: 80377327 Datum: NADE2
Soil Map Unit Name: PLA, TC NB, PIB	NWI classification: PF()
Are climatic / hydrologic conditions on the site typical for this time of	vear? Yes V No (If no. explain in Remarks.)
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$ significant	ly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate rep	Is the Sampled Area within a Wetland? Yes No If yes, optional Wetland Site ID:NAS-012
WMA-1245-012 Houts Streen	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	) Surface Soil Cracks (B6)
Surface Water (A1)	d Leaves (B9) Drainage Patterns (B10)
High Water Table (A2)	a (B13) Moss Trim Lines (B16)
Saturation (A3) Marl Deposits	(B15) Dry-Season Water Table (C2)
Water Marks (B1)     Hydrogen Sul	fide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhiz	cospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of F	Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron R	Leduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Su	rface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain	n In Remarks) Microtopographic Relief (D4)
Eield Observations:	FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inche	s) to sucfair
Water Table Present? Yes No Depth (inche	s): CLV find
Saturation Present? Yes No Depth (inche	s): Wetland Hydrology Present? Yes No
(includes capillary fringe)	Suttau
	tos, previous inspections), il available.
I NON D	
Remarks.	
Nave	

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

١

Sampling Point:

Tree Stratum (Plot size: 30) 1. Aur Wanny 2. Frakinis amencana 3. Fraxinus profunda 4 5 6	Absolute <u>% Cover</u> <u>15</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u>	Dominant In Species?	dicator Status Ac u BL	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:         Total Number of Dominant         Species Across All Strata:         Percent of Dominant Species         That Are OBL, FACW, or FAC:         Ø         Percent of Dominant Species         That Are OBL, FACW, or FAC:         Ø         Prevalence Index worksheet:
7	5	= Total Cover	Acu Ac	Total % Cover of:       Multiply by:         OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =
6 7 Herb Stratum (Plot size:) 1 1 2 3	3) 10	= Total Cover	Heu	Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation         2 - Dominance Test is >50%         3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
4				<ul> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vines – All woody vines greater than 3.28 ft in height.</li> </ul>
Woody Vine Stratum         (Plot size: )           1.         )           2.		= Total Cover		Hydrophytic Vegetation Present? Yes <u>No</u>
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL

UPA=	ASTIN
Sampli	ing Point:

					Sampling Point.
Profile Description: (Describe to the de	epth needed to docum	ent the indicator	or confirm	the absence of	of indicators.)
(inches) Color (moist) %	Redox	Features	$1 \alpha \alpha^2$	Toxturo	Bomarka
$\frac{11101000}{1101000} = 1000000000000000000000000000000000000$		<u></u>			Remarks
Die Gall i w				1020m	
)					
3	-1:			10	
	4)			<u></u>	
	••	······································			
	-3	·			
			-		
	- () <u></u>				
·					
	7/1			1,5	
			. <u></u>		
¹ Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, MS	=Masked Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:				Indicators f	or Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below	Surface (S8) (LRI	RR,	2 cm Mi	uck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)			Coast P	Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfac	e (S9) (LRR R, M	RA 149B)	5 cm Mi	ucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky M	ineral (F1) ( <b>LRR K</b>	, L)	Dark Su	ırface (S7) (L <b>RR K, L, M</b> )
Stratified Layers (A5)	→ Loamy Gleyed N	latrix (F2)		Polyvalu	ue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)		Thin Da	irk Surface (S9) (LRR K, L)
Thick Dark Sunace (A12)	Redox Dark Sun	ace (F6)		Iron-Ma	nganese Masses (F12) (LRR K, L, R)
Sandy Gleved Matrix (S4)	Depieted Dark S	unace (F7)		Pleamo	nc Floodplain Solis (F 19) (MLRA 149B)
Sandy Redox (S5)				Red Pa	rent Material (F21)
Stripped Matrix (S6)				Verv Sh	allow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	9B)			Other (E	Explain in Remarks)
	,				, ,
³ Indicators of hydrophytic vegetation and v	vetland hydrology must	be present, unless	disturbed	or problematic.	
Restrictive Layer (if observed):					
Туре:	_				10
Depth (inches):	-			Hydric Soil F	Present? Yes No
Remarks:			i	· ·	/
				84	

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region			
Project/Site: (ale hele) City/C	Sounty: CML Sampling Date 77/19			
Apolicant/Owner:	State: PA Sampling Point UPC-12			
Investigator(s): UK M(/Section	on, Township, Bange: None (MPA-			
Landform (hillelope terrace etc.):	ief (concave, convex, none); Nano Slone (%);			
Subracian (IRB) MI RAY: R Lat: 41 9(6172	8 Long - 80371277 Datum JAD83			
Soil Man Linit Name: PLP	NWI classification: 1)P			
Are alimatic / hudralasis conditions on the site tuning! for this time of user? Y				
Are Vacatation N). Sall N actividation of the site typical for this time of year?				
Are vegetation 10, soil, or Hydrology 7 significantly distur				
Are vegetation _/, Soil _/, or Hydrology naturally problems	atter (if needed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	Is the Sampled Area within a Wetland? Yes No			
Remarks: (Explain alternative procedures here or in a separate report.)				
WPG-VAS-012	-			
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)			
High Water Lable (A2) Aduatic Fauna (B13)	Moss Trim Lines (B16)			
Man Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)     Hydrogen Suinde Od	or (C1) Craylish Burrows (Co)			
Sediment Deposits (B2)     Oxidized Rhizosphere     Drift Deposits (B2)     Bracence of Boduces	d Iron (C4) Stunted of Strassed Plants (D1)			
Alaci Mat or Crust (P4)	in Tilled Sails (C6) Commercial Resistion (D2)			
Iron Denosite (B5)	Shallow Aquitard (D3)			
In the position of the second				
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No X Denth (inches):				
Water Table Present? Ves No Depth (inches):				
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:			
none				
Remarks:				
none				

VEGETATION - L	Jse scientific names	of plants.
----------------	----------------------	------------

IN	11000
IM	011117
0.0	- ISUIC

VEGETATION - Use scientific names of plants.				Sampling Point:
Tree Stratum (Plot size:)	Absolute % Cover	Dominant I Species?	ndicator Status	Dominance Test worksheet:
2. Autor Sacharinnum	E -	. 4 _	Ann	That Are OBL, FACW, or FAC: (A)
3. Phonus enoting	25	<u> </u>	FAU	Species Across All Strata: (B)
4 5				Percent of Dominant Species (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	15	= Total Cove	r	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 5)		2.20	-	FACW species x 2 =
1 Betala Jainta	15	Y	FAIL	FAC species x 3 =
Para invitta	5	-N	TACL	)FACU species x 4 =
2. VOXX VIIIIIIIYA	5	V	FACU	UPL species x 5 =
4 PUTUS OCCO LINE OF	5	1 N	UPL	Column Totals: (A) (B)
5. Undra barioin	10	Ч	FACU	Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	LIS	= Total Cove	r	2 - Dominance Test is >50%
Herb Stratum (Plot size:				3 - Prevalence Index is ≤3.0'
1. Topulandhon valian	25	<u> </u>	fAC_	4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation' (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9		<del></del>		Harb All herbaceous (non woody) plants regardless of
10				size, and woody plants less than 3.28 ft tall.
12	7-			Woody vines – All woody vines greater than 3.28 ft in height,
Weedly View Stratum (Plateine 3)	<u>()</u>	= Total Cove	er	
2	<u> </u>			Hydrophytic Vegetation
3				Present? Yes No
4				
Remarks: (Include photo numbers here or on a separate s	sheet.)			
	5763165353 <b>8</b> 70			

#### SOIL

SOIL	SOIL Sampling Point:							nt:
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Denth	Matrix		Redox F	eatures				
(inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture	Remarks	
0-17	11147 4/18	1110				loan		
	LOTHE PL	<u> </u>						
			210					
	-		12					
			10					
			• (a)					
¹ Type: C=Co	ncentration. D=Depl	etion, RM=F	educed Matrix MS=N	Asked Sand Grai	ns.	² Location: PL=Po	re Lining, M=Matri	x.
Hydric Soil I	ndicators:					Indicators for Prot	plematic Hydric S	oils ³ :
Histosol	(A1)		Polyvalue Below S	urface (S8) (LRR	R,	2 cm Muck (A1	0) (LRR K, L, MLF	RA 149B)
Histic Ep	ipedon (A2)	_	MLRA 149B)		•	Coast Prairie R	edox (A16) (LRR	K, L, R)
Black His	stic (A3)	_	_ Thin Dark Surface	(S9) (LRR R, ML	RA 149B)	5 cm Mucky Pe	at or Peat (S3) (L	RR K, L, R)
Hydroge	n Sulfide (A4)	_	_ Loamy Mucky Mine	eral (F1) (LRR K,	L)	Dark Surface (S	67) ( <b>LRR K, L, M</b> )	
Stratified	Layers (A5)	_	Loamy Gleyed Mai	trix (F2)		Polyvalue Below	w Surface (S8) (LI	RR K, L)
Depleted	Below Dark Surface	e (A11) 🛛 _	_ Depleted Matrix (F	3)		Thin Dark Surfa	ace (S9) (LRR K, I	_)
Thick Da	rk Surface (A12)	_	_ Redox Dark Surface	æ (F6)		Iron-Manganes	e Masses (F12) (L	.RR K, L, R)
Sandy M	ucky Mineral (S1)	-	_ Depleted Dark Sur	face (F7)		Piedmont Floor	plain Soils (F19) (	(MLRA 149B)
Sandy G	leyed Matrix (S4)	_	_ Redox Depression	s (F8)		Mesic Spodic (	1 A6) ( <b>MLRA 144</b> A ta sial ( <b>E</b> 04)	, 145, 149B)
Sandy R	edox (S5)					Red Parent Ma	terial (F21)	
Stripped	Matrix (So)					Very Snallow D	in Romarke)	-)
	1200 (57) (LKK K, M	LKA 149D)					in rteinarks)	
³ Indicators of	hydronhytic vegetati	on and wetl	and hydrology must be	e present unless	disturbed o	or problematic		
Restrictive L	aver (if observed):		and hydrology mudt b					
Type								
Depth (inc	bos):					Hudric Soil Present	2 Voc	No X
Deptil (inc						Hydric Son Present		
Remarks:								
								1
								ĺ.

P1-1/45-017

~
NOA-KASTULINDA-VAS-019
1000-145-04D
WETLAND DETERMINATION DATA FORM - Northcontral and Northcost Pagion
Design 15 PC
Applicant/Owner: 2 Repairing Date: 0 11 City/County: 0 00 State: 0 20 State: 0 20 20 20 20 20 20 20 20 20 20 20 20 2
Investigator(s): VAC MCC Section Townshin Range:///// O WAA
Landform (hillslope, terrace, etc.): NM Q Local relief (concave, convex, none): N/M Q Slope (%): O
Subregion (LRB) or MLRA): Lat: L11.934927 Long: 20.38205 Datum ADK3
Soil Map Unit Name: Mh, PIPS NWI classification: PFM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes V No (If no, explain in Remarks.)
Are Vegetation , Soil, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area
Hydric Soil Present? Yes No within a Wetland? Yes No
Wetland Hydrology Present? Yes No If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)
what AS-018, within a negrany maintained ROW-
FIN WAT CASOLIU
MANAK-OUT AND THE Source CARAVACTERIARS
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)
Saturation (A3)       Marl Deposits (B15)       Dry-Season Water Table (C2)         Water Marka (P1)       Marl Deposits (B15)       Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Water Table Present? Yes No Depth (inches): 5 10
Saturation Present? Yes No Depth (inches): + Suff Wetland Hydrology Present? Yes No
(includes capillary fringe)
Remarks:
vone

Sampling Point: 45-0(8

Tree Stratum (Plot size: $\overline{\langle} , \gamma \rangle$ )	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Nou			Number of Dominant Species
2.			
3.			Total Number of Dominant Species Across All Strata:
4			
5			That Are OBL, FACW, or FAC:
6			
7			Prevalence Index worksheet:
1 ****		- Total Covor	OPL species
Sanling/Shruh Stratum (Plat size:			FACW species x2 =
COMOLOS (du ad	5		FAC species x 3 =
SURVIUS LUARCA		¥	FACU species x 4 =
2			UPL species x 5 =
3			Column Totals: (A) (B)
4			Provalance Index = R/A =
5			
6			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
		= Total Cover	$\underline{f}$ 2 - Dominance   est is >50% 3 - Prevelence Index is <3.0 ¹
Herb Stratum (Plot size:)	115		4 - Morphological Adaptations ¹ (Provide supporting
1. Dicharthellim chimithum	40	1 THU	data in Remarks or on a separate sheet)
2. Olyconia strata	10	N OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
30NO(LOR SONSIDILS	26	M FACU	¹ Indicators of hydric soil and wetland hydrology must
4. SEIVEDS EXPENING	3	A OR	be present, unless disturbed or problematic.
5	0		Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
8			Sapling/shrub Woody plants less than 3 in. DBH
9.			and greater than or equal to 3.28 ft (1 m) tall.
10.			Herb - All herbaceous (non-woody) plants, regardless of
11			size, and woody plants less than 3.28 ft tall.
12	<u> </u>		Woody vines – All woody vines greater than 3.28 ft in
· •	m	= Total Cover	neight.
Moody Vine Stratum (Plot size RI)	<u></u>		
1 MAA 9			
			Hydrophytic
2			Vegetation Present? Ves No
3			
4			
Pemarke: (Include photo numbers here or on a congrate	choot )	= Total Cover	
Atom Include photo numbers here of on a separate		interned T	20101- noolian
Wellow I water with the		abrillion of	Uno response
WE Maintenance mucho	AN	ives were	CHUCK -
J			

SOIL									Sampling Po	FS DB
Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix		Redo	x Feature	S					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			Remarks	
0-14		82	7,51246	15	<u>D</u>	PL_	laami			
		·			·				· • · · · ·	
		·								
					·					
					·		21			
Hydric Soil I	ncentration, D=Dep	IELION, RIM-	-Reduced Matrix, Ma	S=Maske	d Sand Gr	ains.	Location:	PL=Pore L	Ining, M=Mati	nx. Soils ³
Histosol	(A1)		Polyvalue Belo	w Surface	(58) (1 8	RR	2 cm M	uck (A10) (i		RA 149B)
Histic Ed	bipedon (A2)		MLRA 149B	)		× 1 <b>x</b> ,	Coast F	Prairie Redo	x (A16) (LRR	K. L. R)
Black Hi	stic (A3)		Thin Dark Surfa	, ace (S9) (	LRR R, M	LRA 149B)	5 cm M	ucky Peat of	or Peat (S3) (L	RR K. L. R)
Hydroge	n Sulfide (A4)		Loamy Mucky !	Mineral (F	1) (LRR K	., L)	Dark S	urface (S7)	(LRR K, L, M)	,
Stratified	I Layers (A5)		Loamy Gleyed	Matrix (F2	2)		Polyval	ue Below S	urface (S8) (L	RR K, L)
Depleted	Below Dark Surface	e (A11)	L Depleted Matrix	k (F3)			Thin Da	ark Surface	(S9) (LRR K,	L)
Thick Da	ark Surface (A12)		Redox Dark Su	rface (F6	)		iron-Ma	anganese M	asses (F12) (	LRR K, L, R)
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (I	=7)		Piedmo	ont Floodpla	in Soils (F19)	(MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depress	sions (F8)			Mesic S	Spodic (TA6	) (MLRA 144/	A, 145, 149B)
Sandy R	edox (S5)						Red Pa	irent Materia	al (F21)	
Stripped	Matrix (S6)		•				Very Si	hallow Dark	Surface (TF1)	2)
	пасе (S7) (LKK R, N	ILRA 149E	5)				Other (	Explain in R	(emarks)	
Indicators of	hydrophytic vegetal	ion and we	etland hydrology mus	st be pres	ent, unles	s disturbed	or problematic	•		
	_ayer (if observed):									
Type: Depth (inc	ches):						Hydric Soil	Present?	Yes	No
Remarks:								_		

	M – Northcentral and Northeast Region
Project/Site: CPC City/C	Sounty: ENL Sampling Date: 87714
Applicant/Owner: CCPC	State: PHA Sampling Point VPC-OR
Investigator(s): VAS, MCC Section	on, Township, Range: NONL IN PA
Landform (hillslope, terrace, etc.): NONC Local reli	ief (concave, convex, none):WMQ Slope (%):O
Subregion (LRR or MLRA): Z Lat: 41, 93513	Long: 80 380 M Datum VAD83
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	es X No (If no. explain in Remarks.)
Are Vegetation $\mathcal{N}_{i}$ , Soil $\mathcal{N}_{i}$ , or Hydrology $\mathcal{N}_{i}$ , significantly distur	bed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No X	
Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID:
Logated latting a wealoute in	antening transmist for instance
with a grang m	announcer transport keep
OVE 65-015	
UPE VASOZ3, UPE VASOZI,	WPA-VAS-DUD WPA-VAK-DUI
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced	J Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	n in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C	27) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	narks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No A Depth (inches):	
Water Table Present? Yes No A Depth (inches):	
Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes No 义
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
None	
Remarks:	
NAM O	·

LER-UAS-08 Sampling Point:

•				
201	Absolute	Dominant Indi	icator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	<u>Species?</u> St	tatus	Number of Dominant Species
1. WONE				That Are OBL_FACW or FAC:
0				
۷	<u> </u>			Total Number of Dominant
3				Species Across All Strata: (B)
4				
· · · · · · · · · · · · · · · · · · ·				That Are OBL EACIAL or EAC:
5				
6.				
				Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
h [		= Total Cover		OBL species x 1 =
Sapund/Shrub Stratum (Plot size: C )	5	11 1	D	
1. DUNO USA MANAN	$\underline{C}$	4 0	A	FAC species x 3 =
				FACU species x 4 =
۷				UPL species x 5 =
3	<u> </u>			Column Totals: (A) (P)
4				
				Provalence Index = B/A =
5				
6.				Hydrophytic Vegetation Indicators:
-				1 - Ranid Test for Hydrophytic Vegetation
7				
	5	= Total Cover		2 - Dominance Test is >50%
his and h				3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	0-	11 11		4 - Morphological Adaptations ¹ (Provide supporting
1. LOUUN DEVENIVE	82		ALT	data in Remarks or on a separate sheet)
2 DICHARTONOLUDIA CLARKETING	10	N H	KU I	Problematic Hydrophytic Vegetation ¹ (Explain)
	' <del>+ 11 Se</del>	·		
3				Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
5				Seminorio er regennen en an.
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.26 ft (1 m) tail.
				Herb – All herbaceous (non-woody) plants regardless of
10				size, and woody plants less than 3.28 ft tall.
11				
10				Woody vines - All woody vines greater than 3.28 ft in
12				height.
		= Total Cover		
Woody Vine Stratum (Plot size:				
1				
2				Hydrophytic
-				Vegetation
3	<u> </u>			Present? Yes No
4.				
·····		= Total Cover		
Remarks: (Include photo numbers here or on a separate s	sheet.)			
				· · · · · · · · · · · · · · · · · · ·
				1

1A-14	SOR
Sampling Point: _	0

Profile Description: (Describe to the dep	th needed to docun	nent the in	dicator o	r confirm	the absence	of indicator	s.)	
Depth Matrix	Redo	x Features						
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12 101843 (W					am			
¹ Type: C=Concentration D=Depletion RMa	Beduced Matrix MS		Sand Grai	ne	² Location:		ining M=Matr	
Hydric Soil Indicators:	-Neduceu watinx, wie			115.	Indicators	for Problem	natic Hvdric S	oils ³ :
Histosol (A1)	Polyvalue Belov	v Surface (	58) (L <b>RR</b>	R.	2 cm M	luck (A10) (I	RRK I MIE	RA 149B)
Histic Epipedon (A2)	MLRA 149B)	. oundoo (			Coast I	Prairie Redo	x (A16) (LRR	K. L. R)
Black Histic (A3)	Thin Dark Surfa	ce (S9) (LF	RRR, MLI	RA 149B)	5 cm M	lucky Peat o	r Peat (S3) (Ll	RR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N	(lineral (F1)	(LRR K,	L)	Dark S	urface (S7) (	(LRR K, L, M)	
Stratified Layers (A5)	Loamy Gleyed I	Matrix (F2)			Polyval	ue Below St	urface (S8) (Ll	RR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)			Thin Da	ark Surface	(S9) (LRR K, I	_)
Sandy Mucky Minoral (S1)	Redox Dark Sur	Tace (F6)	、 、		Iron-Ma	anganese Mi	asses (F12) (L	RRK,L,R)
Sandy Gleved Matrix (S4)	Beday Depressi	ions (F8)	)		Fleama	Soodic (TA6)	MIRA 1444	145 149B)
Sandy Redox (S5)					Red Pa	rent Materia	l (F21)	, 140, 1400)
Stripped Matrix (S6)					Very SI	hallow Dark	Surface (TF12	2)
Dark Surface (S7) (LRR R, MLRA 149E	3)				Other (	Explain in R	emarks)	•
³ Indicators of hydrophytic vegetation and we	tland hydrology mus	t be presen	t, unless	disturbed	or problematic			
Restrictive Layer (if observed):								
Туре:								$\mathbf{X}$
Depth (inches):					Hydric Soil	Present?	Yes	No <u>X</u>
Remarks:								
C								

WETL	AND DETERMINATION DAT	A FORM – Northcentral a	and Northeast Region
Project/Site: 17PC		City/County: Chill	Sampling Date 18/14
Applicant/Owner: 19PC			State: PIA Sampling Point: (1PA-22)
Investigator(s):	411	Section Townshin Range	none in PA
Landform (hillelone torrace etc	$\sim 0/2 \sim 0$		
Subragian (I BB of MI BA)	4419271		Sope (%).
Sublegion (LRR of MLRA):			Patum: William
		V	NVVI classification:
Are climatic / hydrologic conditi	ons on the site typical for this time of	year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil /	, or Hydrology _/ /_ significant	tly disturbed? Are "Norma	Circumstances" present? Yes 🔼 No
Are Vegetation [, Soil	, or Hydrology <u>7</u> naturally	problematic? (If needed, e	explain any answers in Remarks.)
	3S – Attach site map showir	ng sampling point locatio	ons, transects, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes 🔀 No	Is the Sampled Area	X
Hydric Soil Present?	Yes X No	within a Wetland?	Yes No
Wetland Hydrology Present?	Yes <u> </u>	If yes, optional Wetland	Site ID: WPTT VIS-02-2
Remarks: (Explain alternative	procedures here or in a separate rep	port.)	
1104-1AK-123	is blineated	altension of	wetterna dellineateral
WIT 13000	AN THEMOUS C	VILL U	Located across Altrom
146	Ort Previous C		substation bin
	WPA-145-023 =	UPA-145-021	CL & tek in
		ooph ne oa	Roanteralaur
HYDROLOGY			fue
Wetland Hydrology Indicato	rs:		Secondary Indicators (minimum of two required)
V Surface Mater (A4)	of one is required; check all that apply	/)	Surface Soil Cracks (B6)
K High Water Table (A2)	Vater-Staine	d Leaves (B9)	Drainage Patterns (B10)
$\overline{X}$ Saturation (A3)	Marl Deposit	s (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Su	lfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhi:	zospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of F	Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron F	Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	ial Imagoni (PZ) Other (Eveloi	urface (C7)	Shallow Aquitard (D3) Migrotopographic Bolief (D4)
Sparsely Vegetated Conc	ave Surface (B8)	n in reinains)	EAC-Neutral Test (D5)
Field Observations:		Cert	
Surface Water Present?	Yes 💹 No Depth (inche	es): Suttla	
Water Table Present?	Yes An No Depth (inche	es):Surtace	V
Saturation Present?	Yes A No Depth (inche	es): Strfale Wetland H	lydrology Present? Yes 👗 No
Describe Recorded Data (stres	am gauge, monitoring well, aerial pho	otos, previous inspections), if ava	ilable:
NONE			
Remarks:			
WORL			

WPH-145023
Sampling Point:

Tree Stratum (Plot size: 30) ) 1. Acer wpwm	Absolute <u>% Cover</u> 40	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2. Carpinis candiniant. 3. Fraxina americano	20	V AC	Species Across All Strata:
4. <u>Olmus Word</u> 5	10		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6	<u></u>		Prevalence Index worksheet: Total % Cover of:Multiply by:
<u>Sapling/Shrub Stratum</u> (Plot size: <u>5</u> ) 1. Roca multiflord	5	= Total Cover	OBL species         x 1 =           FACW species         x 2 =           FAC species         x 3 =
2 3		12	FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)
4 5.			Prevalence Index = B/A =
6 7			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ↓ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5)	A	= Total Cover	$3$ - Prevalence Index is $\leq 3.0^1$
1. Impatiens rapensis 2. Tovi countron paduals	30	Y FACI	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)     Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclia sensibilis 4 (avex crinita	3D 10	N OR	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		<u>+</u>	Definitions of Vegetation Strata:
6 7			<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8			<b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11 12			<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30)		= Total Cover	
1	<u> </u>		Hydrophytic
3			Present? Yes No
4			
	-heat \	= Total Cover	
	onoot./		

SOIL		Sampling Point:
Profile Description: (Describe to th	e depth needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist)	6 Color (moist) % Type ¹ Loc ²	Texture Remarks
7-14 Gen 2.7. 10		100m
	<u></u>	
·······		
'Type: C=Concentration, D=Depletion	, RM=Reduced Matrix, MS=Masked Sand Grains.	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils":
Histosol (A1)	<ul> <li>Polyvalue Below Surface (S8) (LRR R,</li> </ul>	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	🗶 Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A1	1) Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	_	Red Parent Material (F21)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA	. 149B)	Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation a	nd wetland hydrology must be present, unless disturbed (	or problematic.
Restrictive Laver (if observed):		
Tune:		
Type		
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		

DA

-14

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region
Project/Site: LAPC City/C	County: The CO Sampling Date: 7110
Applicant/Owner: 4 PC	State: State: Sampling Point
Investigator(s): MC Section	on, Township, Range: NONO IN PA
Landform (hillslope, terrace, etc.)	ief (concave, convex, none):
Subregion (LRR of MLRA): Lat: Lat: Lat:	0Long:
Soil Map Unit Name: MD	NWI classification: Uff
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es X No (If no, explain in Remarks.)
Are Vegetation Soil , or Hydrology V significantly distur	bed? Are "Normal Circumstances" present? Yes <u>Y</u> No
$-\frac{1}{\sqrt{2}}$ , $\frac{1}{\sqrt{2}}$ ,	
SUMMARY OF FINDINGS – Attach site map showing san	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes No X       Hydric Soil Present?     Yes No X	Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
UPL-145020 UPL-145-022	120
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced	I Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	n in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C	27) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	narks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes <u>No </u> Depth (inches):	
(includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
NONE	
Remarks:	
None	

UI-1/AST

			oumping roma.
301	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1. Tasas grannan	20	J. TACIA	That Are OBL, FACW, or FAC: (A)
2. ALEV SCHUNDIN	50	1+#Y	Total Number of Dominant
3. QUELLIS MORE	10_	N HAU	Species Across All Strata: (B)
4			Percent of Dominant Species
5.			That Are OBL, FACW, or FAC: (A/B)
6			
7			Prevalence Index worksheet:
<i>r</i>	715		Total % Cover of:Multiply by:
, <del>K</del> I	10	= I otal Cover	OBL species x1 =
Sapling/Shrub Stratum (Plot size:)			
1. NONO			FAC species X 3 =
2			
3			OPL species X 5 =
4.			Column Fotals: (A) (B)
5			Prevalence Index = B/A =
6		·	Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
L			2 - Dominance Test is >50%
R		= Total Cover	$3 - \text{Prevalence Index is } \leq 30^{1}$
Herb Stratum (Plot size:)	a	51	4 - Morphological Adaptations ¹ (Provide supporting
1. JULIOCULUT M JACILON	15	HHE	data in Remarks or on a separate sheet)
2 Padathullum Deltattm	25	Y UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
3.			¹ Indicators of hydric soil and wetland hydrology must
Δ			be present, unless disturbed or problematic.
F		·	Definitions of Vegetation Strata:
ō	<u> </u>	<u> </u>	Tree – Woody plants 3 in, (7.6 cm) or more in diameter at breast beight (DBH), regardless of beight
7			
8			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3 28 ft (1 m) tall
9			
10	·	<u> </u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall
11-			
12.			Woody vines – All woody vines greater than 3.28 ft in height
	$\leq 0$	= Total Cover	norbiti
Woody Vine Stratum (Plot size)	<u> </u>		
t Nord Phile Stratum (Fist size.			
			Hydrophytic
2	<u> </u>		Vegetation
3		<u> </u>	Present? Yes No /~
4			
	_	= Total Cover	
Remarks: (Include photo numbers here or on a separate s	heet.)		

\$

is ou
1

Profile Description: (Describe to the de	pth needed to documer	nt the indicator of	or confirm	the absence of	f indicators.)	
Depth Matrix	Redox F	eatures			,	
(inches) Color (moist) %	Color (moist)	% Type ¹	_Loc ²	Texture	Remarks	
D-14 IDYRUM 10				mon		
the second second				<u></u>		
	·					
			· · · · · · · · · · · · · · · · · · ·			
		V				÷
						ž
a				3		5
· · · · · · · · · · · · · · · · · · ·						ž
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, MS=N	Masked Sand Gra	ins.	² Location:	PL=Pore Lining, M=Ma	atrix.
Hydric Soil Indicators:				Indicators fo	or Problematic Hydric	: Soils³:
Histosol (A1)	Polyvalue Below S	urface (S8) (LRR	. R,	2 cm Mu	ck (A10) ( <b>LRR K, L, M</b>	LRA 149B)
Histic Epipedon (A2)	MLRA 149B)			Coast Pr	airie Redox (A16) (LR	R K, L, R)
Black Histic (A3)	Thin Dark Surface	(S9) (LRR R, ML	RA 149B)	5 cm Mu	cky Peat or Peat (S3)	(LRR K, L, R)
Stratified Layers (A5)	Loamy Mucky Mine	eral (F1) (LKK K, triv (E2)	L)	Dark Sur	a Bolow Surface (S8)	
Depleted Below Dark Surface (A11)	Depleted Matrix (E	(FZ)		Folyvald	k Surface (S9) (I RR K	
Thick Dark Surface (A12)	Redox Dark Surfac	ce (F6)		Iron-Man	ganese Masses (F12)	(LRR K. L. R)
Sandy Mucky Mineral (S1)	Depleted Dark Sur	face (F7)		Piedmon	t Floodplain Soils (F19	) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depression	s (F8)		Mesic Sp	odic (TA6) (MLRA 14	4A, 145, 149B)
Sandy Redox (S5)				Red Pare	ent Material (F21)	
Stripped Matrix (S6)				Very Sha	allow Dark Surface (TF	12)
Dark Surface (S7) (LRR R, MLRA 14	<b>3B</b> )			Other (E:	xplain in Remarks)	
2						
Indicators of hydrophytic vegetation and v	vetland hydrology must be	e present, unless	disturbed of	or problematic.		
Restrictive Layer (if observed):						
Туре:	-					X
Depth (inches):				Hydric Soil P	resent? Yes	No _/
Remarks:						
77						

		M Northcontral	and Northeast Pagion	INSIL
I CON	ERIVINATION DATA FOR	avi – Northcentral	and Northeast Region	I.D. in ma
Project/Site:	City/C	county: ENL	Sampling I	Date MATEVASU (
Applicant/Owner:			_ State: Samplin	g Point:
Investigator(s): KAC	Secti	on, Township, Range:	none in PA	
Landform (hillslope, terrace, etc.)	NTV/01/02 Local rel	ef (concave, convex, no	ne): COVAW	Slope (%):
Subregion (LBB or MLBA):	Lat 41 GUIR	23 1000 - 9	203747101	Datum: 1 AD22
Soil Man Unit Name:		zong	NWI classification:	IDEM
Are climatic / hydrologic conditions on the s	the typical for this time of year?	No	/If no, explain in Remarks )	
Are Vegetation N > Soil or Hydrologic Contracts on the s	trology	bed? Are "Norma	(if no, explain in Remarks.)	es X No
Are Vegetation Soil Nor Hyd		atic? (If peeded	evolain any answers in Remar	ke )
	nology naturally problem		explain any answers in Remai	
SUMMARY OF FINDINGS – Atta	ch site map showing san	pling point location	ons, transects, importa	int features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area	V	
Hydric Soil Present?	Yes 🖌 No	within a Wetland?	Yes No	250
Wetland Hydrology Present?	Yes No	If yes, optional Wetland	d Site ID: <u>444</u>	UX
Remarks: (Explain alternative procedures	; here or in a separate report.)			
LIDIA LULGODE				
UNA OTSO 28				
(PEAL) The				
ALEST CTA 14	1 - mar			
HOUTS SPATIF	F. 016			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minim	um of two required)
Primary Indicators (minimum of one is req	uired; check all that apply)		Surface Soil Cracks (B6)	)
Surface Water (A1)	Water-Stained Leave	s (B9)	🔀 Drainage Patterns (B10)	
X High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table	e (C2)
Water Marks (B1)	Hydrogen Sulfide Od	or (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizosphere	es on Living Roots (C3)	Saturation Visible on Ae	rial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced	l Iron (C4)	Stunted or Stressed Plan	nts (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction	n in Tilled Soils (C6)	K Geomorphic Position (D	2)
Iron Deposits (B5)	Thin Muck Surface (C	(77)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (	.B7) Other (Explain in Rer	narks)	Microtopographic Relief	(D4)
Sparsely Vegetated Concave Surface	: (B8)		FAC-Neutral Test (D5)	
Field Observations:		SILAND		
Surface vvater Present? Yes	_ No Depth (inches): VC	4 win T		in the second
Water Table Present? Yes	No X Depth (inches):	TW	Ludardana Decembra Ver	V
(includes capillary fringe)	_ No Depth (inches): 10	SUAde	Aydrology Present? Tes	A NO
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos, pre	vious inspections), if ava	ailable:	
none				
Remarks				
and				
110.0				

PEM

VEGETATION – Use scientific names of plants	S.	PEM LUPAFICAS-028 Sampling Point:
Tree Stratum (Plot size: 30)	Absolute Dominant Indica <u>% Cover Species? Statu</u>	tor JS Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
3		Total Number of Dominant Species Across All Strata:
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC:
6		Prevalence Index worksheet:     Total % Cover of:     Multiply by:
	= Total Cover	OBL species         x 1 =
Sapling/Shrub Stratum (Plot size: 6)	5 V UP	FACW species         x 2 =           FAC species         x 3 =
2 OUL NEWA	15 1 03	FACU species x 4 =
3		UPL species x 5 = Column Totals: (A) (B)
4	· ·	
5		Prevalence index = B/A =
7		1 - Rapid Test for Hydrophytic Vegetation
·	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5)		3 - Prevalence Index is ≤3.0 ¹
1. Chucena Strate	15 1 OB	data in Remarks or on a separate sheet)
2 Soliclag ignaciuss	20 1 ===	Problematic Hydrophytic Vegetation ¹ (Explain)
A. Caver Crintz		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		Definitions of Vegetation Strata:
6	; <u></u> ; <u></u> ; <u></u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3,28 ft (1 m) tall.
9 10		<ul> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> </ul>
11		Woody vines – All woody vines greater than 3.28 ft in
12	= Total Cover	height.
Woody Vine Stratum (Plot size: 301)		
1. None		_
2		── Hydrophytic ── Vegetation
3		Present? Yes No
4		-
Remarks: (Include photo numbers here or on a separate	sheet.)	

S	0	I	L
_	_		

PEM UPHUES DES Sampling Point:
-----------------------------------

Profile Des	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirm	n the absence of indicators.)	
Depth	Matrix		Red	ox Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
2-5	NUP 36	700	5VP 10	30	1	-	sittan	
	NIK 7	- 40-	CIPAL		P	H_	311041	
512	10412-5		AK36	. <u>40</u>	D	8	Sandy 10m	
			9. 0				9	
	·		·					
							· · · · · · · · · · · · · · · · · · ·	
					19 <b></b>		· · · · · · · · · · · · · · · · · · ·	
				2.0 <u>-</u>				
							· · · · · · · · · · · · · · · · · · ·	
							*	
¹ Type: C=C	oncentration. D=Der	oletion, RM	=Reduced Matrix. N	IS=Masked	i Sand G	rains.	² Location: PL=Pore Lining, M=Matr	ix.
Hydric Soil	Indicators:						Indicators for Problematic Hydric S	ioils ³ :
Histosol	(A1)		Polyvalue Bel	ow Surface	(S8) (LR	RR.	2 cm Muck (A10) (LRR K. L. ML	RA 149B)
Histic E	oipedon (A2)		MLRA 149	3)	(00) (=	,	Coast Prairie Redox (A16) (LRR	K. L. R)
Black Hi	stic (A3)		Thin Dark Sur	-, face (S9) (I	LRR R. N	ILRA 149B	3) 5 cm Mucky Peat or Peat (S3) (L	RR K. L. R)
Hydroge	en Sulfide (A4)		Loamy Mucky	Mineral (F	1) (LRR I	(, L)	Dark Surface (S7) (LRR K, L, M)	
Stratified	d Layers (A5)		Loamy Gleyed	I Matrix (F2	2)		Polyvalue Below Surface (S8) (L	RR K, L)
Deplete	d Below Dark Surfac	ce (A11)	Depleted Matr	ix (F3)	,		Thin Dark Surface (S9) (LRR K,	L)
Thick Da	ark Surface (A12)		Redox Dark S	urface (F6)			Iron-Manganese Masses (F12) (I	_RR K, L, R)
Sandy N	lucky Mineral (S1)		Depleted Dark	Surface (F	7)		Piedmont Floodplain Soils (F19)	(MLRA 149B)
Sandy G	Bleyed Matrix (S4)		Redox Depres	sions (F8)			Mesic Spodic (TA6) (MLRA 1444	A, 145, 149B)
Sandy F	Redox (S5)						Red Parent Material (F21)	
Stripped	Matrix (S6)						Very Shallow Dark Surface (TF12	2)
Dark Su	rface (S7) (LRR R,	MLRA 1498	3)				Other (Explain in Remarks)	
³ Indicators o	f hydrophytic vegeta	ation and we	etland hydrology mu	ust be prese	ent, unles	s disturbed	d or problematic.	
Restrictive	Layer (if observed)	2						
Type:							$\mathbf{V}_{i}$	
Depth (in	ches).						Hydric Soil Present? Yes	No
Domarka:								
Remarks.								

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region	x
Project/Site: Lake Ene Connector City/County: Che Co Sampling Date: 2/22/	14
Applicant/Owner: FTC Holding Point: WPA-1	AKUDA
Investigator(s): VAS Section, Township, Range:	
Local relief (concave, convex, none): MOVL Slope (%):	
Subregion (LBR or MLRA); P Lat: 41,941823 Long: -80374761 Datum: MADR	(3
Soil Man Linit Name: NWI classification: PS	
Are climatic / bydrologic conditions on the site typical for this time of year? Yes V No (If no, explain in Remarks.)	
Are Vegetation N / Sail / or Hydrology / significantly disturbed? Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology agrinitianly problematic? (If needed, explain any answers in Remarks.)	
	to
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important leatures, e	
Hydrophytic Vegetation Present? Yes No Is the Sampled Area	
Hydric Soil Present? Yes No Within a Wetland? Yes No	
Wetland Hydrology Present?     Yes     No     If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a separate report.)	
vood and a watter and a contact of a contact of	
Pse	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two require	d)
Primary Indicators (minimum of one is required; check all that apply)	
Surface Water (A1) Water-Stained Leaves (B9)	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2)	
Yuster Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)	Ĩ.
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial imagery (C9)	
Drift Deposits (B3)     Presence of Reduced Iron (C4)     Sufficient (C4)     Suf	
Algar Mat or Crust (B4) Recent from Reduction in Timed Solis (Co) Control of Galactic (D2)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes X No / Depth (inches):	
Water Table Present? Yes No K Depth (inches):	
Saturation Present? Yes A No Depth (inches): 710 Wetland Hydrology Present? Yes No (includes capillary fringe)	-
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
hone	
Remarks:	

ï

# NTAVASUL8 PSS

Sampling Point:

	Absolute	Dominant Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 20')	% Cover	Species? Status	Number of Deminant Spacing
1. Philes conclusion	0	Y UP	That Are OBL. FACW, or FAC: 2 (A)
2	-		Total Number of Dominant
3.			Species Across All Strata (D)
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: (A/B)
6			Reveleres Index workshoot
			Prevalence index worksneet:
1	(7)		
\ <u> </u>	$-\mathbf{v}$	= Total Cover	OBL species x1 =
Sapling/Shrub Stratum (Plot size: 10)		ал с	FACW species x 2 =
1. COMISSIMMUM	40	4 HACLI)	FAC species x 3 =
comis allo	40	T Dru	FACU species x 4 =
R lang all col usin	1/2	AAT	UPL species x 5 =
3. ICURDES OT LEGANI (PSIS	- <del>U</del> -	biox	´ Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
-			1 - Rapid Test for Hydrophytic Vegetation
7			$\overline{X}$ 2 - Dominance Test is >50%
	<u>Ч()</u>	= Total Cover	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	Ŭ		4 - Mombological Adaptations ¹ (Provide supporting
1. None			data in Remarks or on a separate sheet)
2			Problematic Hydrophytic Vegetation ¹ (Explain)
2	·	).	
3	•		¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			
			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
·			at bleast height (DDH), regardleas of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10.			Herb – All herbaceous (non-woody) plants, regardless
			of size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in
12	0		height.
	0	= Total Cover	
Woody Vine Stratum (Plot size:)			
None			
2	• • • • • • • • • • • • • • • • • • • •		
3			Hydrophytic Vegetetien
4			Present? Yes No
16	$\square$	= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		
Tornando Infrataria	,		

SOIL							Sa	mpling Point:	
Profile Des	cription: (Describe	e to the dep	pth needed to docu	ment the	indicato	r or confirm	the absence of indicator	rs.)	٦
Depth (inches)	Matrix		Red	ox Feature	S	1002	Texture	Remarks	
heres)	INT TO		FUP SI	70	T	D/	Silt both		25
03	WID 34	20	SUDSI	20	12	D/	Sand Jaco		
212	101K-2	_0	SAKAP	<u> </u>	D_	PL I	Sanortioan		
			2			<u></u> ,			
								4	
	-								
			1)						
				-					
	<del>2</del>				1.				
		÷							
1							21 continue DI =Doro I	laina M-Matrix	
Type: C=C Hydric Soil	oncentration, D=De Indicators:	pletion, RM	=Reduced Matrix, N	IS=Maske	sand u	prains.	Indicators for Problem	natic Hydric Solls ³ :	-
Histosol	(A1)		Polyvalue Belo	ow Surface	(S8) (LI	RR R,	2 cm Muck (A10) (	LRR K, L, MLRA 149B)	
Histic Ep	pipedon (A2)		MLRA 149E	3)			Coast Prairie Redo	x (A16) (L <b>RR K</b> , L <b>, R</b> )	
Black Hi	stic (A3)		Thin Dark Surl	face (S9) (		MLRA 149B)	5 cm Mucky Peat of Dod: Surface (S7)	or Peat (S3) (LRR K, L, R)	
Hydroge Stratifier	n Sullide (A4)		Loamy Mucky	Mineral (F Matrix (F2	1) (LRR 2)	<b>r,</b> L)	Polyvalue Below S	Gurface (S8) (LRR K, L)	
Depleted	d Below Dark Surfa	ce (A11)	Depleted Matr	ix (F3)	,		Thin Dark Surface	(S9) (LRR K, L)	
Thick Da	ark Surface (A12)		Redox Dark S	urface (F6)			Iron-Manganese M	lasses (F12) (LRR K, L, R)	
Sandy N	Mucky Mineral (S1)		Depleted Dark	Surface (I	-7)		Piedmont Floodpla	an Soils (F19) (MLRA 1498) 3) (MLRA 144A 145 1498)	í.
Sandy G	Redox (S5)		Redox Depres	isions (ro)			Red Parent Materia	al (F21)	
Stripped	Matrix (S6)						Very Shallow Dark	Surface (TF12)	
Dark Su	rface (S7) (LRR R,	MLRA 149	B)				Other (Explain in F	Remarks)	
³ Indicators of	f hydronhytic yeaet:	ation and w	etland hydrology mu	ist be pres	ent. unle	ss disturbed (	or problematic.		
Restrictive I	Layer (if observed)	):							
Туре:								2	
Depth (ind	ches):						Hydric Soil Present?	Yes No	
Remarks:									
		1							
		1					392		

WETLAND DETERMINATION DATA FOR	M – Northcentral and Northeast Region
Project/Site: alle the Connector City/Ca	ounty: <u>GNICO</u> Sampling Date! 2/22/14
Applicant/Owner:HOCIINO	State: Sampling Point:
Investigator(s): VAS Section	n, Township, Range: Nove in PA Pto
Landform (hillslope, terrace, etc.):	f (concave, convex, none): <u>NDNL</u> Slope (%): <u>O</u>
Subregion (LRR or MLRA): 72 U Lat: 41,941823	Long: Datum: V+08-3
Soil Map Unit Name:	NWI classification: PG)
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	s X No (If no. explain in Remarks.)
Are Vegetetion $N$ Soil $\Lambda$ or Hydrology $\Lambda$ , significantly disturb	ed? Are "Normal Circumstances" present? YesX No
Are Vegetation . Soil . or Hydrology . aturally problemat	ic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
	Is the Sampled Area
Hydrophytic Vegetation Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes optional Wetland Site ID: WAA-IAS 028
Remarks: (Exolain alternative procedures here or in a separate report.)	
PFD	
	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	(B9) Drainage Patterns (B10)
Vialer-Stained Leaves	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odo	r (C1) Cravfish Burrows (C8)
Sediment Denosits (B2) Oxidized Rhizosphere:	s on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced	Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rem	arks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	(+ a
Surface Water Present? Yes No Depth (inches):	TOCC
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes 🔀 No Depth (inches): 🛒	Gelland Hydrology Present? Yes <u>No</u> No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	ious inspections), if available:
NDWO	
Remarks.	
none	

ï

1

$\sim$ )	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1. ALL NOMM		<u> </u>	FAC	That Are OBL, FACW, or FAC: (A)
Betala lours	10		FITCH	Total Number of Dominant
B. TICHAMUS OCCICLENTICITY	. (0	_(	1-DUELY	Species Across All Strata: (B)
I				Percent of Dominant Species (7) (A/B)
5				
	• •			Prevalence Index worksheet:
	75-			
			/ei	FACW species x2 =
Bapling/Shrub Stratum (Plot size:)	10	V	FIAMIL	FAC species x 3 =
VOSA MUMARA	<u> </u>		mar	FACU species x 4 =
	•			UPL species x 5 =
·	•		3 <b></b> -4	Column Totals: (A) (B)
·				Prevalence Index = B/A =
	•			Hydrophytic Vegetation Indicators:
,	-			1 - Rapid Test for Hydrophytic Vegetation
	10	= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5)	-10			- 3 - Prevalence Index is ≤3.0 ¹
() WOX GO SEFERING	15	Y	FLACW	data in Remarks or on a separate sheet)
JUNCOS ATTAIS	10	-4	OPI	Problematic Hydrophytic Vegetation ¹ (Explain)
Caver se	10		_	
Nester so	12)			be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
ð				Tree Woody plants 3 in (7.6 cm) or more in diamete
·				at breast height (DBH), regardless of height.
3				Sapling/shrub – Woody plants less than 3 in. DBH
le			<u> </u>	and greater than or equal to 3.28 ft (1 m) tall.
IO			··	Herb - All herbaceous (non-woody) plants, regardless
1			·	of size, and woody plants less than 3.28 ft tall.
2				Woody vines – All woody vines greater than 3.28 ft in beight
	_50	= Total Co	ver	nogh.
Voody Vine Stratum (Plot size:)				
. Non				
9,	-			
3				Hydrophytic Verentation
4	0			Present? Yes No
	<u> </u>	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

2

~~!!

up	AVH Sampling	SUZ8 Point:	FPD

1

Profile Des	cription: (Descri	be to the de	pth needed to docu	ment the indic	ator or confir	m the absence of indic	ators.)	
Depth	Matrix	K	Red	ox Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Ty	pe ¹ Loc ²		Remarks	
2-8	IOYR44	90	10/R "6	10 [	M	Clay (room		
2-111	IN PUL	50	1174761	575	5M	clay (60 m		
214	1011-11	-00				<u></u>		
								_
			-					
	-							
			**					
	-		·					_
T		Venieties Di			d Greine	² Location: DI -D	ore Lining M=Matrix	_
vdric Soil	Indicators:	repletion, RN	-rteuuceo Matrix, N	IS-Masked Sar		Indicators for Pro	blematic Hydric Soils ³ :	
Histosol	(A1)		Polyvalue Belo	ow Surface (S8)	(LRR R.	2 cm Muck (A	10) (LRR K, L, MLRA 149	B)
Histic E	pipedon (A2)		MLRA 1498	3)	(,	Coast Prairie F	Redox (A16) (LRR K, L, R	<b>z</b> )
Black H	istic (A3)		Thin Dark Sur	face (S9) (LRR	R, MLRA 149	B) 5 cm Mucky P	eat or Peat (S3) (LRR K,	L, R)
Hydroge	en Sulfide (A4)		Loarny Mucky	Mineral (F1) (LI	RR K, L)	Dark Surface (	(S7) (L <b>RR K</b> , L)	
Stratifie	d Layers (A5)			Matrix (F2)		Polyvalue Belo	DW SUITACE (30) (LKK K, 1 face (99) (LRR K, 1)	L)
Depleter	d Below Dark Sun ark Surface (A12)	race (ATT)	Redox Dark S	urface (F6)		iron-Mangane	se Masses (F12) (LRR K.	. L, R
Sandy N	Aucky Mineral (S1	)	Depleted Dark	Surface (F7)		Piedmont Floo	dplain Soils (F19) (MLRA	1491
		/		• •				
Sandy C	Gleyed Matrix (S4)		Redox Depres	sions (F8)		Mesic Spodic	(TA6) <b>(MLRA 144A, 145,</b>	1 <b>49</b> E
Sandy C Sandy F	Gleyed Matrix (S4) Redox (S5)	)	Redox Depres	sions (F8)		Mesic Spodic Red Parent M	(TA6) ( <b>MLRA 144A, 145,</b> aterial (F21)	1 <b>49</b> E
Sandy G Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) Matrix (S6)	*	Redox Depres	sions (F8)		Mesic Spodic Red Parent M Very Shallow	(TA6) ( <b>MLRA 144A, 145,</b> aterial (F21) Dark Surface (TF12)	1 <b>49</b> E
Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (L <b>RR F</b>	R, MLRA 149	Redox Depres	sions (F8)		Mesic Spodic Red Parent M Very Shallow Other (Explain	(TA6) ( <b>MLRA 144A, 145,</b> aterial (F21) Dark Surface (TF12) i in Remarks)	1498
Sandy C Sandy F Stripped Dark Su	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (L <b>RR F</b> f hydrophytic vege	R, MLRA 149	Redox Depres	sions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent M Very Shallow Other (Explain ed or problematic.	(TA6) ( <b>MLRA 144A, 145,</b> aterial (F21) Dark Surface (TF12) i in Remarks)	1498
Sandy C Sandy F Stripped Dark Su Indicators o	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F hydrophytic vege Layer (if observe	R, MLRA 149 etation and w	Redox Depres	sions (F8) ust be present, u	unless disturbe	Mesic Spodic     Red Parent M     Very Shallow     Other (Explain     or problematic.	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) i in Remarks)	149E
Sandy C Sandy F Strippec Dark Su Indicators o Restrictive	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic.	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) i in Remarks)	1498
Sandy C Sandy F Stripped Dark Su Indicators o Cestrictive Type: Depth (in	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	ınless disturba	Mesic Spodic     Red Parent M     Very Shallow     Other (Explain     or problematic.     Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	149
Sandy C Sandy F Stripped Dark Su Indicators o testrictive Type: Depth (in temarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F If hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	sions (F8) ust be present, u	inless disturbe	Mesic Spodic     Red Parent M     Very Shallow     Other (Explain     of problematic.     Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	1491
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	etation and w	PB) vetland hydrology mu	sions (F8) ust be present, u	ınless disturbe	Mesic Spodic     Red Parent M     Very Shallow     Other (Explain     or problematic.     Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) i in Remarks)	149
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	ınless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	149
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F In hydrophytic vege Layer (if observe Ches):	R, MLRA 149 etation and w	Redox Depres	sions (F8) ust be present, u	inless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe	etation and w	Redox Depres	isions (F8) ust be present, u	ınless disturbe	Mesic Spodic Red Parent Mi Very Shallow Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) i in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	ınless disturba	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Sleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	sions (F8) ust be present, u	inless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe	R, MLRA 149	Redox Depres	isions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe	R, MLRA 149 etation and w	Redox Depres	ust be present, u	inless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in: Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe	R, MLRA 149 etation and w	Redox Depres	ust be present, u	ınless disturba	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Sleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	sions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Cestrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	isions (F8) ust be present, u	unless disturbe	Mesic Spodic     Red Parent Mi     Very Shallow     Other (Explain ed or problematic.     Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o Restrictive Type: Depth (in: Remarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy (C Sandy F Stripped Dark Su ndicators o testrictive Type: Depth (in temarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w	Redox Depres	ust be present, u	inless disturba	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	
Sandy C Sandy F Stripped Dark Su Indicators o testrictive Type: Depth (in temarks:	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR F f hydrophytic vege Layer (if observe ches):	R, MLRA 149 etation and w rd):	Redox Depres	ust be present, u	unless disturbe	Mesic Spodic Red Parent Mi Very Shallow I Other (Explain ed or problematic. Hydric Soil Preser	(TA6) (MLRA 144A, 145, aterial (F21) Dark Surface (TF12) in Remarks)	

÷

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region
Project/Site:	County: Thi Sampling Date: 1/57/4
Applicant/Owner: ). E C	State: 11 Sampling Point: UP /- 14 m ()
Investigator(s):	on, Township, Range: NONO (IN PAT
Landform (hillslope, terrace, etc.): Value SIAD Local rel	ief (concave, convex, none): NONO Slope (%): 1
Subregion (LRR or MLRA): Lat: Lat:L	3 Long: 80,374767 Datum: AD&3
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	es No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil _/V, or Hydrology/V_ naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks: (Explain alternative procedures here or in a separate report.)	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Mari Deposits (B15)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	es on Living Roots (C3) Saturation Visible on Aerial Imageny (C9)
Drift Deposits (B3) Presence of Reduced	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	n in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (0	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	
Water Table Present? Yes No /> Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
NON	
Remarks:	
NANO	

sampling Point

1. Querus palastus	Absolute Dominant Indicator <u>% Cover</u> Species? Status <u>N</u> FACUD	Dominance Test worksheet:           Number of Dominant Species           That Are OBL, FACW, or FAC:
2. Knus copallinum 3. Pinis alba	IC V UPL	Total Number of Dominant Species Across All Strata:
5. PWAUS SCIDENT	5 N FACY	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7	<u> </u>	Total % Cover of:Multiply by:
	20 = Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:		FACW species x 2 =
1 None		FAC species x 3 =
2		FACU species x 4 =
2		UPL species x 5 =
3		Column Totals: (A) (B)
4 5		Prevalence Index = B/A =
6	· · · · · · · · · · · · · · · · · · ·	Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
/		2 - Dominance Test is >50%
E I	= Total Cover	$3 - $ Prevalence Index is $\leq 3.0^1$
Herb Stratum (Plot size:) 1. Hermenorallis folloa	20 Y' UPL	<ul> <li>4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
2. MICROD CONTROLLE	N) N FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3 Tina minor	DU V UD	¹ Indiactors of hydric soil and wattand hydrology must
		be present, unless disturbed or problematic.
4		Definitions of Vegetation Strata:
5	( )	Deminitions of Vegetation Strata.
6		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of
11		size, and woody plans less than 5.20 ft tan.
12.		<b>Woody vines</b> – All woody vines greater than 3.28 ft in height
	(()) = Total Cover	nogra
Weat Vine Statum (Distaires 3())		
(Plot size)		
1		Hydrophytic
2	·	Vegetation
3		Present? Yes No
4	<u> </u>	
	= Total Cover	
Remarks: (Include photo numbers here or on a separate s	sheet.)	1.

SOIL	
------	--

UPL-145-028
Sampling Point

Profile Description: (Describe to the de	pth needed to document the ir	dicator or co	onfirm	the absence of	of indicators.)
Depth Matrix	Redox Features				
(inches) Color (moist) %	Color (moist) %	Type ¹ Lo	<u>) c</u> ²	Texture	Remarks
0=12 10-1R33 10				m	
				1	
					<u>.</u>
	10				
					······································
·	·				раниция и страниция и страниц
	· · · · · · · · · · · · · · · · · · ·				2
					2
				2	4
······································					
¹ Type: C=Concentration D=Depletion RM		Sand Grains		² Location	PI =Pore Lining M=Matrix
Hydric Soil Indicators:	Treadded Matrix, MO Maaned	Gana Granis.		Indicators	for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (	S8) ( <b>LRR R,</b>		2 cm M	uck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)			Coast F	Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surface (S9) (L	RR R, MLRA	149B)	5 cm M	ucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1	) (LRR K, L)		Dark Si Bahwal	urface (S7) (LRR K, L, M)
Depleted Below Dark Surface (A11)	Depleted Matrix (F2)			Polyval Thin Da	ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)			Iron-Ma	Inganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F	7)		Piedmo	nt Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)			Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)				Red Pa	rent Material (F21)
Dark Surface (S7) (I RR R MI RA 149	<b>IR</b> )			Very Sr Other (I	Tallow Dark Surface (TFTZ) Explain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology must be prese	nt, unless dist	urbed o	or problematic	
Restrictive Layer (if observed):					
Туре:					$\sim$
Depth (inches):	-			Hydric Soil	Present? Yes <u>NoX</u>
Remarks:					
ho. a					
NON					
9					

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region	
Project/Site: (9) Sampling Date: US/A	
Applicant/Owners A	DC1
Application Township Dances IN DAA LIA DAA	-1
Investigator(s):	
Landform (hillslope, terrace, etc.): Local relier (concave, convex, none): YCOTTO Slope (%): A Some (%	
Subregion (LRR or MLRA): Lat: Lat: Long: Datum: Datum:	E.
Soil Map Unit Name: NWI classification: NWI classification:	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology ZV naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes V No vithin a Wetland? Yes No vithin a Wetland?	
Wetland Hydrology Present? Yes No. If yes optional Wetland Site ID: WPA-14-029	
Remarks: (Explain alternative procedures here or in a separate report.)	
REMON western side & nood Houts SALVAR.	
Tre on Packaron 1	
to on atomsally wad	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10)	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)	
Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)	2
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)	
Iron Deposits (B5) Irin Muck Surface (C7) Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) // Inicrotopographic Relief (D4)	
Sparsely Vegetated Concave Surface (Bo)	
Sunace vialer Present? res <u>No Depth (inches)</u>	
Saturation Present? Yes No Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
NON	
Remarks:	
none	

×

Sampling Point:

- 01	Absolute	Dominant	Indicator	De la construction de la constru
Tree Stratum (Plot size: )	% Cover	Species?	Status	Dominance l'est worksneet:
1. Nove	<u> </u>			That Are OBL, FACW, or FAC:
2				Total Number of Dominant
3				
4				Percent of Dominant Species (A/B)
5		<u> </u>		
6				Prevalence Index worksheet:
7			·	Total % Cover of: Multiply by:
	0	= Total Cove	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:				FACW species x 2 =
1. (Comis amomim	()	Y	FACU	FAC species x 3 =
2				FACU species x 4 =
2				UPL species x 5 =
<u>.</u>				Column Totals: (A) (B)
4 5				Prevalence Index = B/A =
6	,			Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
l	$\overline{V}$			$\mathbf{\overline{Y}}$ 2 - Dominance Test is >50%
G	~	= Total Cove	ər	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	$-(\overline{O})$	N	FACIN	<ul> <li>4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
Jomerard'Ille EVIVa	10	N	()P/	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Stand Stand	37	V	(DZ)	
3. Chifeener Sivilar	the state		- My	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Persiana sagaitrita	50	NN	034	
5. POLYGONDM ENECTUM	20	<u>`</u>	FACO	Definitions of Vegetation Strata:
60				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
/				Sanling/shrub - Woody plants less than 3 in DBH
8		·		and greater than or equal to 3.28 ft (1 m) tall.
10				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size and woody plants less than 3.28 ft tall.
11				
12				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
	28	= Total Cov	or	
	704	- Total Cov		
(Plot size)				
1OVL				Hydrophytic
2				Vegetation
3				Present? Yes No
4				
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

ofile Desc	ription: (Describe f	to the dep	oth needed to docum	nent the i	ndicator	or confirm	n the absence of inc	dicators.)	
Pepth	Matrix		Redo	K Feature	5	2	<b>-</b> .	<u> </u>	
nches)	Color (moist)	<u>%</u>	Color (moist)	75	Type'	Loc	lexture	Remarks	_
HZ	104K-12	50	7.54K."4	$\mathcal{L}$	$\mathcal{P}_{-}$	M	Toand -		
							·		
	·		·	_	_				
			··		_		· · · · · · · · · · · · · · · · · · ·		
	÷				_				
					-				
						:			
ype: C=Co		etion, RM	=Reduced Matrix, MS		Sand Gr	ains.	² Location: PL=	Pore Lining, M=Matrix	κ.
ydric Soil I	ndicators:						Indicators for P	roblematic Hydric Se	oils ³ :
_ Histosol	(A1)		Polyvalue Belov	/ Surface	(S8) ( <b>LR</b> I	RR,	2 cm Muck (	A10) ( <b>LRR K, L, MLR</b>	A 149B)
_ Histic Ep	ipedon (A2)		MLRA 149B)	(00) (1		-	Coast Prairie	e Redox (A16) (LRR M	(, L, R)
Black Hi	stic (A3)		Thin Dark Surfa	ce (S9) (L	.RR R, M	_RA 149B	) 5 cm Mucky	Peat or Peat (S3) (LF	R K, L, R)
_ Hydroge	n Suitide (A4)		Loamy Mucky N	lineral (F		, L)	Dark Surraci	e (S7) (LKK K, L, M) alou: Surface (S9) (LB	
_ Stratified	Layers (A5)	(111)		VIATIX (F2	)		Polyvalue B		( <b>K K, L</b> )
_ Depleted	Below Dark Surface	e (A11)	Depleted Matrix	(F3) face (E6)				unace (59) (LKK K, L	.) DDKID\
_ Thick Da	rk Surface (A12)		Redox Dark Sur	Tace (F6)			Iron-Mangar	andolain Seila (F12) (L	KK K, L, K)
_ Sandy IV	lucky Mineral (S1)		Depieted Dark 3		()		Pleamont Fi	0000011311130113 (F 19) (1	145 149D)
_ Sandy G	leyed Matrix (S4)		Redox Depress	ons (F8)			Iviesic Spool	IC (1A0) (MILKA 144A) Meterial (E21)	, 145, 1498)
_ Sandy R	edox (S5)						Red Parent	waterial (F21)	、 、
_ Stripped	Matrix (S6)		<b>P</b> )				Very Shallow	w Dark Surface (TFT2)	)
_ Dark Sur	Tace (57) (LKK K, M	ILKA 1491	B)						
ndicators of estrictive L	hydrophytic vegetati ayer (if observed):	ion and we	etland hydrology mus	t be prese	ent, unles:	disturbed	l or problematic.		
Type:	none								
Depth (inc	:hes):						Hydric Soil Pres	ent? Yes	No
emarks:									

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region
Project/Site:	County: Sampling Date: 11/S/14
Applicant/Owner) FC	State: PA Sampling Point: 1 4 VASO2
Investigator(s):	on, Township, Range: 10000 (MPA
Landform (hillslope, terrace, etc.): WML Local rel	ief (concave, convex, none): MOMO Slope (%):
Subregion (LRR or MLRA): Lat: Lat:	12 Long: -80.374936 Datum: MARX3
Soil Map Unit Name: <u>PHB</u>	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	/es No (If no, explain in Remarks.)
Are Vegetation, Soil or Hydrologysignificantly distur	bed? Are "Normal Circumstances" present? Yes V No
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ haturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF EINDINGS Attach site map showing can	poling point locations, transacts, important features, atc
	iphing point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area
Hydric Soil Present? Yes No X	
Remarks: (Explain alternative procedures here or in a separate report.)	It yes, optional vvetland Site ID:
-   As - 8   20	
I TE THOUGH	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Mari Deposits (B15)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Hydrogen Sullide Od	or (C1) Clayiish Bullows (C0)
Drift Denosits (B3)	t Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Reg	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 💭 Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
	•
Remarks	
NONO	
10.00	

et:			
es AC:	0	(A)	
	2520		

Sampling Point:

16tsoz

Tran Stratum (Blat size: 3/1	Absolute	Dominant II	ndicator	Dominance Test worksheet:
	$\frac{\sqrt{6} \text{ COVEL}}{2}$		CACI 0	Number of Dominant Species
1. OUGUAR MANA	$-\frac{1}{2}$	$\overline{\nabla}$	FALL	That Are OBL, FACW, or FAC: (A)
2. TOMUS COPALITIAN	- 10		UPC	Total Number of Dominant 🤍
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
-				Prevalence Index worksheet:
/	20			Total % Cover of: Multiply by:
1-4	<u>50</u> #	Total Cove	r	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1. None				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
J				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5	e <del>e</del> e -			Hudrophytic Vegetation Indicators
6				1 Depid Test for Hydrophytic Vegetation
7				2 Deminance Test in >50%
	$\bigcirc$ =	Total Cove	r	2 - Dominance Test is >50%
Herb Stratum (Plot size:)	0.10	. (		4 - Morphological Adaptations ¹ (Provide supporting
1. Cyani max	90	$\frac{1}{1}$	PL_	data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation' (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
4.				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
e.				Tree Mandu planta 2 in (7.6 cm) or more in diameter
-				at breast height (DBH), regardless of height.
7				<ul> <li>B. K. Linda and a standard lange them of the DDU.</li> </ul>
8				and greater than or equal to 3.28 ft (1 m) tall.
9				
10	·			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.				
12	-			height.
	901	Total Cove	r	
Woody Vine Stratum (Plat size: 2)				
Voody vine Stratum (Flot size/				
1. 10010				
2				Vegetation
3				Present? Yes No
4				
		Total Cove	r	
Remarks: (Include photo numbers here or on a separate	sheet.)	7		
Nosa 1	,			

rofile Desc	ription: (Describe to	the dep	th needed to docun	nent the indi	cator o	confirm	the absence of in	dicators.)	
Depth	Matrix		Redo	Features		2			
inches)	Color (moist)	%	Color (moist)	<u> </u>	ype'	Loc	Texture	Remark	(S
$\mathcal{D}$	10K2.5/+	W					locem -		
	<u>ا</u>								
	16								
	·								
	ncentration D=Denle	tion RM=	Reduced Matrix MS	=Masked Sa	nd Grai		² Location: PL	=Pore Lining M=I	Matrix
dric Soil I	ndicators:		needed mains, me	- madica da	na oran		Indicators for F	Problematic Hyd	ric Soils ³ :
Histosol	(A1)		Polyvalue Belov	V Surface (S8	) (LRR	R,	2 cm Muck	(A10) ( <b>LRR K, L,</b>	MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)				Coast Prair	ie Redox (A16) (L	RR K, L, R)
Black His	stic (A3) a Sulfida (A4)		Thin Dark Surfa	ce (S9) (LRR lineral (E1) (L	R, MLF	RA 149B)	5 cm Mucky	y Peat or Peat (S3	3) (LRR K, L, R) M)
Stratified	Lavers (A5)		Loamy Gleved I	Matrix (F2)	-nn n,	<b>_</b> )	Polyvalue B	Below Surface (S8	) (LRR K, L)
_ Depleted	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin Dark S	Surface (S9) (LRR	K, L)
_ Thick Da	rk Surface (A12)		Redox Dark Sur	face (F6)			Iron-Manga	inese Masses (F1	2) (LRR K, L, R)
Sandy Mi Sandy Cl	ucky Mineral (S1)		Depleted Dark S	Surface (F7)			Piedmont F	loodplain Soils (F	19) (MLRA 149B)
Sandy G	edox (S5)		Redux Depless	10115 (FO)			Red Parent	Material (F21)	144A, 143, 143D)
_ Stripped	Matrix (S6)						Very Shallo	w Dark Surface (	TF12)
_ Dark Sur	face (S7) (LRR R, ML	RA 149E	3)				Other (Expl	lain in Remarks)	
dicators of	hydrophytic vegetatio	n and we	etland hydrology mus	t be present	unless	disturbed o	or problematic.		
estrictive L	ayer (if observed):								
Туре:									17
Depth (inc	hes):						Hydric Soil Pres	sent? Yes	No <u>//</u>
marks:									

×.

WETLAND DETERMINATION DATA FOR	M – Northcentral and Northeast Region
Project/Site: (F/ City/C	ounty: Cene Co Sampling Date: 1/5/14
	State: PIA Sampling Point WH-1/45 () 3
Investigator(a):	Townshin Pange ADD D LA DAT
Security (as the second s	
	2 $ 2$ $ 2$ $ 2$ $ 2$ $         -$
Subregion (LRR or MLRA):	
Soil Map Unit Name: CA (	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es 🔨 No (If no, explain in Remarks.)
Are Vegetation Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes <u></u> No
Are Vegetation $\underline{N}$ , Soil $\underline{M}$ , or Hydrology $\underline{N}$ naturally problema	tic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes V No	within a Wetland? Yes No
Wetland Hydrology Present? Yes V	If yes, optional Wetland Site ID: WAVASOS
Remarks: (Explain alternative procedures here or in a separate report.)	
WAX-145-030	
PEM	
Isolata	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) X Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odd	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Z Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced	I Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	n in Filled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C	(D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ren	EAC Neutral Tast (D5)
Sparsely Vegetated Concave Surface (B8)	
Surface Water Present? Yes X No Depth (inches):	xfara
Water Table Present? Ves No V Denth (inches):	
Saturation Present? Yes V No Depth (inches)#	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), ir available:
NGV L.	
Remarks:	
non	
A second a second	

,

	Absolute	Dominant Indicator	Dominance Test worksheet:
e Stratum (Plot size: <u>50</u> )	<u>% Cover</u>	Species? Status	Number of Dominant Species
Van			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
	· · · · · · · · · · · · · · · · · · ·		Species Across All Strata: (B)
			Percent of Dominant Species
			That Are OBL, FACW, or FAC: (A/B)
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Ning/Shrub Stratum (Plot size:	N=7		FACW species x 2 =
Ning/oin ub otratum (i fot size)			FAC species x 3 =
pus			FACU species x 4 =
			UPL species x 5 =
			Column Totals: (A) (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
	$\cap$	- Total Cover	X 2 - Dominance Test is >50%
		- Total Cover	3 - Prevalence Index is ≤3.0 ¹
b Stratum (Plot size:)	76	V PO	4 - Morphological Adaptations ¹ (Provide supporting
ILLING CALCOLOG G	10		data in Remarks or on a separate sheet)
Enthamia aveninio	KC	1tAC	Problematic Hydrophytic Vegetation' (Explain)
			¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed of problematic.
			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
			at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH
-			and greater than or equal to 3,28 ft (1 m) tall.
			Herb – All herbaceous (non-woody) plants, regardless of
			size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in
			height.
	100	)= Total Cover	
dy Vine Stratum (Plot size: 30)			
NANO			
			Hydrophytic
			Vegetation
	· •		Present r res / No
	0	= Total Cover	

	ription: (Describe t	to the dep	th needed to docur	nent the indicator or co	nfirm the abser	ice of indicato	rs.)	
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (mojst)	<u>% Type¹ Lo</u>	c ² Texture		Remarks	
-12	LONR'L	6	DUR'6	40	Clay	(ocm		
					J			
						-		
						-		
	••							
		ation DM			21 002	tion: DI -Doro	lining M-Mat	riv
vdric Soil I	ndicators:	etion, Rivi-	-Reduced Matrix, Mc	S-Masked Sand Grains.	Indicat	ors for Proble	matic Hydric	Soils ³ :
Histosol	(A1)		Polyvalue Below	v Surface (S8) (LRR R.	2 c	m Muck (A10) (	LRR K, L, ML	RA 149B)
Histic Ep	ipedon (A2)				Co	ast Prairie Red	ox (A16) ( <b>LRR</b>	( K, L, R)
_ Black His	stic (A3)		Thin Dark Surfa	ce (S9) (LRR R, MLRA [·]	149B)5 c	m Mucky Peat	or Peat (S3) (L	<b>.RR K, L, R</b> )
_ Hydroge	n Sulfide (A4)		Loamy Mucky Muc	lineral (F1) (LRR K, L)	Da	rk Surface (S7)	(LRR K, L, M	)
_ Stratified	Layers (A5)	(644)	Loamy Gleyed I	Matrix (F2)	Po	yvalue Below S	Surface (S8) (L	.RR K, L)
_ Depleted Thick Date	I Below Dark Surface	(AT1)	Depleted Matrix Redox Dark Sur	(F3) rface (F6)	Ini	n Dark Surrace	(39) (LKK K, lasses (F12) (	L)
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F7)	Pie	dmont Floodpla	ain Soils (F19)	(MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)	Me	sic Spodic (TA	6) (MLRA 144	A, 145, 149B)
_ Sandy R	edox (S5)				Re	d Parent Materi	al (F21)	
Chrimmond	Matrix (S6)				Ve	y Shallow Dark	Surface (TF1	2)
_ Suipped		I RA 149F	8)		Oth	ier (Explain in F	Remarks)	
_ Suipped _ Dark Sur	face (S7) (LRR R, M						,	
_ Supped _ Dark Sur	face (S7) (LRR R, M	on and we	tland bydrology mus	t he present unless dist	urbed or problem	atic		
Dark Sur	face (S7) (LRR R, M hydrophytic vegetati	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.		
Dark Sur Dark Sur ndicators of estrictive L	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.		
Dark Sur Dark Sur ndicators of estrictive L Type:\/	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.	Yes	Νο
Dark Sur ndicators of estrictive L Type: Depth (inc	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless dist	urbed or problem	ooil Present?	Yes <u>X</u>	No
Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes X	No
Surpped Dark Sur ndicators of estrictive L Type:\/ Depth (inc ∋marks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes X	No
Surpped Dark Sur ndicators of estrictive L Type: Depth (inc ∋marks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): by end of the served): thes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes 📐	No
Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): hes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes <u>X</u>	No
Surpped Dark Sur dicators of estrictive L Type: Depth (inc	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless dist	urbed or problem	atic. Soil Present?	Yes	No
Dark Sur Dark Sur estrictive L Type:∕ Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	oil Present?	Yes	No
Dark Sur Dark Sur dicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): thes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes	No
Surpped Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): hes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes X	No
Surpped Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): thes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.	Yes	No
Supped Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.	Yes	No
Supped Dark Sur estrictive L Type:\/ Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	oil Present?	Yes	No
Surpped Dark Sur ndicators of estrictive L Type:\ Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): thes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes	No
Surpped Dark Sur ndicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): thes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic. Soil Present?	Yes	No
Surpped Dark Sur adicators of estrictive L Type: Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): hes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.	Yes	No
_ Surpped _ Dark Sur adicators of estrictive L Type:\ Depth (inc emarks:	face (S7) (LRR R, M hydrophytic vegetati ayer (if observed): hes):	on and we	tland hydrology mus	t be present, unless distu	urbed or problem	atic.	Yes	No

ł

WETLAND DETERMINATION DATA FOR	RM – Northcentral and Northeast Region
Project/Site: / C	County: EMR. Sampling Date: 15/14
Applicant/Owner / GEFITE IFOIDING	State: P/4 Sampling Point UP(-1)?
Investigator(s):	on Townshin Panner AMA AMA AMA AMA AMA AMA AMA AMA AMA AM
Leadform (billolano torrage etc.):	list (concerve convex convex)
	ier (concave, convex, none). <u>ror</u> slope (%).
Subregion (LRR or MLRA):	
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Y	/es // No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes/ No
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site man showing san	noting point locations, transacts, important features, etc.
SUMMART OF FINDINGS – Attach site map showing san	nping point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No 1/2	Is the Sampled Area
Hydric Soil Present? Yes No	within a wetland?
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
1 AL TALE AST	
UPL-IDIS-000	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	es (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	lor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospher	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Ref	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u>V</u> Depth (inches);	1-
Water Table Present? Yes No Depth (inches):	X
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No / \
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
NOME	
Remarks:	
rone	

UPL-145-030

Sampling Point:

A A A A A A A A A A A A A A A A A A A	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot aze:)	<u>% Cover</u>	Species? Status	Number of Dominant Species
1		<u> </u>	That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3.			Species Across All Strata: (B)
A			
-			Percent of Dominant Species That Are OBL_EACW_or EAC* (A/B)
5			
6	<u> </u>		Prevalence index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sanling/Shrub Stratum (Plot size:	0.000		FACW species x 2 =
			FAC species x 3 =
1. Vert			FACIL species x4 =
2			
3			Column Totolo: (A) (P)
4			
5	·		Prevalence Index = B/A =
5			Hudenste die Massadation Indiantenne
6			Hydrophytic Vegetation Indicators:
<u>7.</u>			1 - Rapid Test for Hydrophytic Vegetation
	$\bigcirc$	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size	Dec		3 - Prevalence Index is ≤3.0'
	15		4 - Morphological Adaptations ¹ (Provide supporting
1. Strovian uc varia			data in Remarks or on a separate sneet)
2. Lawm multitlopa		N UPL	Problematic Hydrophytic Vegetation (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must
4.			be present, unless disturbed or problematic.
5	·		Definitions of Vegetation Strata:
J			
6	·	(t <del></del> ))	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	;		at bleast height (DDH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3,28 ft (1 m) tall.
10			Herb - All herbaceous (non-woody) plants, regardless of
10			size, and woody plants less than 3.28 ft tall.
11			Woody vines – All woody vines greater than 3.28 ft in
12			height.
	100	= Total Cover	
Woody Vine Stretum (Plot size: 200)			
, None			
h <u></u>			Hydrophytic
2			Vegetation
3			Present? Yes No
4			
	$\mathcal{O}$	= Total Cover	
Remarks: (Include photo numbers here or on a separate s	sheet.)		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

JUIL	S	0	۱	L
------	---	---	---	---

Altrix       Redox Features       Type       Loc ² Texture       Remarks         Color (moist)       %       Type       Loc ² Texture       Remarks         -6       OTPC/2       (0)	Matrix       Redox Fretures       Output       Color (moist)       %       Type1       Loc2       Texture       Remarks		cription: (Describe	to the der	oth needed to docum	nent the indica	ator or confirm	the absence of indi	cators.)	
Color (moist)       %       Type!       Loc ² Texture       Remarks         -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6       -6	Color (molet)       %       Type!       Loc*       Texture       Remarks         Color (molet)       %       Type!       Loc*       Texture       Remarks         Color (molet)       %       Color (molet)       %       Type!       Loc*       Texture       Remarks         Color (molet)       %       Color (molet)       %       Type!       Loc*       Texture       Remarks         Color (molet)       %       Color (molet)       %       Type!       Loc*       Texture       Remarks         Color (molet)       %       Color (molet)       %       Color (molet)       %       Texture       Remarks         Color (molet)       %       Color (molet)       %       Color (molet)       %       Texture       Remarks         Texture       Color (molet)       %       Texture       Remarks       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %       %	Depth	Matrix		Redo	x Features				
		(inches)	Color (moist)	%	Color (moist)		pe ¹ Loc ²	Texture	Remarks	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix,         Indicators for Problematic Hydric Soils*:         Indicators for Problematic for Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         startictive Layer (If observed):         Type:	ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Soli3':         yrist C Soil Indicators:	-10	MP Ch	10				Dam		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils':         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R,         Histosol (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR K, L, R)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thin Dark Surface (F7)       Polyvalue Below Surface (F7)         Sandy Mucky Mineral (S1)       Depleted Matrix (F3)         Stripted Matrix (S6)       Redox Dark Surface (F7)         Stripted Matrix (S6)       Redox Depressions (F8)         Stripted Matrix (S6)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         rstrict Layer (if observed):       Type:         Type:       Other (Explain in Remarks)	ype:       C-Concentration, D=Depletion, RM-Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         Histic Soli Indicators:       Indicators for Problematic Hydric Solis':       Indicators for Problematic Hydric Solis':         Histic Soli Indicators:       MLR 4498)									
ype:       C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depietion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, L, R)       Coast Praine Redox (A16) (LRR K, L, R)         Hydrogen Sulfide (A2)       MLRA 149B)       S orn Mucky Peat or Peat (S3) (LRR K, L, R)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L, N)         Depieted Below Dark Surface (A11)       Depieted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L, N)         Sandy Mucky Mineral (S1)       Depieted Dark Surface (F6)       Iron-Manganese Masses (F12) (LRR K, L, R)         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (Tn6) (MLRA 144A, 145, 1491         Sandy Redox (S5)       Cother (Explain in Remarks)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be	yee:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Lacation:       PL=Pore Lining, M=Matrix.         yrei:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Lacation:       PL=Pore Lining, M=Matrix.         Histocators:       Indicators for Problematic Hydro Solis*:       Indicator Set Parice Redux (LRR K, L, MLRA 1498)         Histocation:       Thin Dark Surface (S9) (LRR K, L, MLRA 1498)       Coart Muck (A) (LRR K, L, M)         Straffied Layers (A)       Loamy Mucky Mineral (F2)       Polyable Below Surface (S0) (LRR K, L, M)         Straffied Layers (A)       Loamy Mucky Mineral (F2)       Polyable Below Surface (S0) (LRR K, L, M)         Depleted Belov Dark Surface (A11)       Depleted Dark Surface (F5)       Trin Dark Surface (S12)         Thick Dark Surface (A12)       Redox Depressions (F8)       Metry Matrix (A44, 145, 149)         Sandy Gleged Matrix (S6)       Pledmant Floodiant (F2)       Pledmant Floodiant (F2)         Dark Surface (S7) (LRR K, L, M)       Redox Depressions (F8)       Metry Hu4A, 145, 149         Sandy Gleged Matrix (S6)       Strafford Layers       Pledmant Floodiant (F2)         Dark Surface (S7) (LRR K, MLRA 1498)       Cother (Explain In Remarks)         dictators of hydrophybic vegetation and wetland hydrology must be present, unless disturbed or problematic.       striftolw Layers (F0 beared):         Type: <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>		-				_			
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils?:         Histos Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L, P)         Stratified Layers (A5)       Loamy Mucky Mineral (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Depleted And Surface (F6)         Sandy Redx (S5)       Depleted And Surface (F7)         Stratified Layers (A5)       Redox Depressions (F6)         Sandy Redx (S5)       Redox Depressions (F6)         Straty Redux (S6)       Redox Depressions (F6)         Straty Redux (S5)       Red Parent Material (F11)         Depleted Layer (if Observed):       Very Fillow Dark Surface (S7) (LRR K, L, 1444, 145, 1498)         Straty Redux (S5)       Other (Explain in Remarks)         Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (if observed):       Trype:         Type:       M         Depth       Hydric Soil Present? Yes       No <td>ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ²Location: PL=Pore Lining, M=Matrix.         yrdic Soil Indicators:       Indicators for Problematic Hydric Soils':       Indicators for Problematic Hydric Soils':         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, L)       Coast Praine Redox A(16) (LRR K, L, R)         Biack Histic (A3)       Thin Dark Surface (S9) (LRR R, NLRA 149B)       Coast Praine Redox A(16) (LRR K, L, R)         Oppleted Below Dark Surface (A11)       Depleted Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L, R)         Depleted Below Dark Surface (A11)       Depleted Below Surface (F6)       Iton Anagnaees Masses (F12) (LRR K, L, R)         Stardy Micry Mineral (S1)       Depleted Batrix (F2)       Thin Dark Surface (F7)       Pietement Floodplain Soils (F19) (MLRA A144, 45, 149         Sandy Micry Mineral (S1)       Depleted Batrix (F3)       Thin Dark Surface (F7)       Pietement Floodplain Soils (F19) (MLRA A144, 45, 149         Sandy Micry Mineral (S1)       Depleted Batrix (F3)       Thin Dark Surface (F7) (MLRA A144, 45, 149         Sandy Acary K (S4)       Redox Depressions (F8)       Redox Cark Surface (F7)       Pietement Floodplain Soils (F10) (MLRA A144, 45, 149         Stripped Matrix (S6)       Redox Dark Surface (F7)       Pietement Floodplain Soils (F10) (MLRA A144, 45, 149         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or pr</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Ğ</td> <td></td>	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         yrdic Soil Indicators:       Indicators for Problematic Hydric Soils':       Indicators for Problematic Hydric Soils':         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, L)       Coast Praine Redox A(16) (LRR K, L, R)         Biack Histic (A3)       Thin Dark Surface (S9) (LRR R, NLRA 149B)       Coast Praine Redox A(16) (LRR K, L, R)         Oppleted Below Dark Surface (A11)       Depleted Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L, R)         Depleted Below Dark Surface (A11)       Depleted Below Surface (F6)       Iton Anagnaees Masses (F12) (LRR K, L, R)         Stardy Micry Mineral (S1)       Depleted Batrix (F2)       Thin Dark Surface (F7)       Pietement Floodplain Soils (F19) (MLRA A144, 45, 149         Sandy Micry Mineral (S1)       Depleted Batrix (F3)       Thin Dark Surface (F7)       Pietement Floodplain Soils (F19) (MLRA A144, 45, 149         Sandy Micry Mineral (S1)       Depleted Batrix (F3)       Thin Dark Surface (F7) (MLRA A144, 45, 149         Sandy Acary K (S4)       Redox Depressions (F8)       Redox Cark Surface (F7)       Pietement Floodplain Soils (F10) (MLRA A144, 45, 149         Stripped Matrix (S6)       Redox Dark Surface (F7)       Pietement Floodplain Soils (F10) (MLRA A144, 45, 149         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or pr								Ğ	
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         ype:       Cast Prairie Redox (A16)       Polyvalue Below Surface (S8) (LRR R,	ype:       C-Concentration. D=Depletion. RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location. PL=Pore Lining, M=Matrix.         yrai:       C-Concentration. D=Depletion. RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location. PL=Pore Lining, M=Matrix.         yrai:       C-Concentration. D=Depletion. RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location. PL=Pore Lining, M=Matrix.         yrai:       C-Concentration. D=Depletion. RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location. PL=Pore Lining, M=Matrix.         yrai:       C-Concentration. D=Depletion. RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location. PL=Pore Lining, M=Matrix.         yrai:       Mark Surface (S9) (LRR R, MLRA 149B)       Coast Praite Reduced (A10) (LRR K, L, R)         Black Hist. (C3)       Thin Dark Surface (S9) (LRR K, L)       Depleted Solva (S0) (LRR K, L)         Strattled Layers (A5)       Loany Ukley Mineral (F1)       Depleted Matrix (F2)       Depleted Matrix (F2)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Pledmont Floodplain Solis (F19) (MLRA 1448, 154)         Standy Rdox (S8)       Redox Depressions (F6)       Heat Sufface (TF12) (LRR K, L)         Standy Rdox (S8)       Polytophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         starticit Layer (if observed):       Type:       Other (Soli Present? Yes No. )         Tripe:       Uh       Hydric Soil Pre									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ² :       Indicators for Problematic Hydric Soils ² :         Histos (A1)       Polyvalue Below Surface (S8) (LRR R, Histos (A3)       Thin Dark Surface (S9) (LRR K, L, R)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR K, L)       Dark Surface (A10) (LRR K, L, R)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (A12)       Thick Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 149E)         Sandy Redox (S5)       Sitriped Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149E)         Sandy Redox (S5)       Stratified Layer (if observed):       Trype:       Vary Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Hydric Soil Present? Yes No	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location. PL=Pore Lining, M=Matrix.         yrdic Soil Indicators:       Indicators for Problematic Hydric Soils':         - Histoci (A1)       Polyvalue Below Surface (S9) (LRR R, ILRR, ILMEA 149B)       Coast Prairs Reduced (A10) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairs Reduced (A10) (LRR K, L, R)         Depleted Below Dark Surface (S9) (LRR R, ILRA 149B)       Derk Surface (S9) (LRR K, L, M)       Derk Surface (S9) (LRR K, L, M)         Straffied Layers (A5)       Loamy Mucky Mineral (F1)       Depleted Below Surface (F3)       Thin Dark Surface (S9) (LRR K, L, M)         Straffied Layers (A5)       Loamy Surface (F3)       Thin Dark Surface (S1) (LRR K, L, M)       Dark Surface (S1) (LRR K, L, M)         Straffied Layers (A5)       Redox Dark Surface (F3)       Thin Dark Surface (S1) (LRR K, L, M)       Dark Surface (S12) (LRR K, L, M)         Straffied Layers (A5)       Redox Depressions (F8)       Thin Dark Surface (S12) (LRR K, L)       Bardy Redox (S15)         Simpheed Matrix (S6)       Redox Depressions (F8)       Measi C Spoid (C14) (MLRA 144A, 145, 149         dicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problemalic.       Similar (S14)         Dapth (inches)       H       H       H       H         Dapth (inches			.,	8 <del></del>					
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Strattled Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Depleted Dark Surface (F7)         Sandy Medox (S5)       Redox Depressions (F8)         Sandy Redox (S5)       Redox Depressions (F8)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         viciators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (If observed):       Type:         Type:       Matrix         Yes       No	ype: C-Concentration, D=Depletion, RM-Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Indicators:       Indicators for Problematic Hydric Soils*:         Histoc Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Strattled Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)         Thick Dark Surface (A12)       Redx Dark Surface (F6)         Strattled Layers (A5)       Loamy Mucky Mineral (F1)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (F3)       Thin Dark Surface (F6)         Sandy Gleyed Matrix (S4)       Redx Dark Surface (F7)         Sandy Redox (S5)       Redx Dark Surface (F7)         Sandy Redox (S5)       Redx Dark Surface (F7)         Dark Surface (S7) (LRR K, L, R)       Vary Shalow Dark Surface (F7)         Dark Surface (S7) (LRR K, L, R)       Depleted Matrix (S4)         Dark Surface (S7) (LRR K, NURA 149B)       Other (Explain in Remarks)         vidators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (if observed):       Trype:									_
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ² :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R,         Histosol (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Statified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)         Depleted Below Dark Surface (A12)       Depleted Matrix (F2)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Gleyed Matrix (S4)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Sandy Gleyed Matrix (S6)       Wesic Spodic (T46) (MLRA 1449B)         Sandy Gleyed Matrix (S6)       Very Shallow Dark Surface (T12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         rdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (If observed):       Type:         Type:       U1         Depth       Hydric Soil Present? Yes         No       Matrix S0	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Histosol (A1)		10	- Ci	۵ <u>ــــــــــــــــــــــــــــــــــــ</u>					
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R,         Histosol (A1)       MLRA 149B)         Biack Histic (A3)       Thin Dark Surface (S9) (LRR K, L, R)         Biack Histic (A3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Redox (S5)       Redox Depressions (F8)         Sandy Redox (S5)       Other AttatA4, 145, 1495         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         is	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         yrif:       Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histoc Epipedon (A2)       MLRA 149B)									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :	ype:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         yfric Soil Indicators:       Indicators for Problematic Hydric Soils ¹ :       Indicators for Problematic Hydric Soils ¹ :         Histos (A1)       Polyvalue Below Surface (S9) (LRR R, MLRA 1498)       2 cm Muck (A10) (LRR K, L, IRA 1498)         Black Histic (A3)       Thin Dark Surface (S9) (LRR K, L)       Dark Surface (S7) (LRR K, L, R)         Stratified Layers (A5)       Learny Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, R)         Stratified Layers (A5)       Learny Mucky Mineral (F3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Layers (A5)       Learny Mucky Mineral (F3)       Thin Dark Surface (S9) (LRR K, L)         Strate (A12)       Redox Dark Surface (F3)       Thin Dark Surface (F3)         Strate (S1)       Depleted Dark Surface (F1)       Pleidend Dark Surface (F2)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Pleiden Dark Surface (F12)         Sandy Mucky Mineral (S6)       Surface (S7) (LRR R, MLRA 1498)       West Soulian Surface (F12)         Strate (S7) (LRR R, MLRA 1498)       Other (Explain in Remarks)       dideators of hydrophybric vegetation and wetland hydrology must be present, unless disturbed or problematic.         retrictiveLayer (if observed):       Type:		<u> </u>		·					
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         ype:       Coast Prairie Redox (A10)       Polyvalue Below Surface (S8) (LRR R, L RLRA 149B)       Indicators for Problematic Hydric Soils ³ :         Histos (A1)       Polyvalue Below Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, R)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, M)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       Piedmont Floodphain Soils (F19) (MLRA 149E)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149E)         Sandy Redox (S5)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Imarks:         strictive Layer (if observed):       Type:       0 ¹ Peiph (in	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ¹ :         Histic Epipedon (A2)       MLRA 149B)       2 cm Muck (A10) (LRR K, L, R).         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R).         Stratified Layers (A5)       Learny Gleyd Matrix (F3)       Dark Surface (S7) (LRR K, L, R).         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (F7)         Standy Belox (S5)       Learny Gleyd Matrix (F3)       Thin Cark Surface (S5) (LRR K, L, R).         Standy Gleyed Matrix (S4)       Redox Dark Surface (F7)       Piedmatrix (Hateriai (F21)         Standy Belox (S5)       Learny Stande (A2)       Mesic Spodic (TA6) (MLRA 1448, 145, 149)         Straface (S7) (LRR R, MLRA 149B)       Chther Alteriai (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Chther Alteriai (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Chther Alteriai (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Chther Alteriai (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Hydric Soil Present? Yes									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R,         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Jett (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Stratffied Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F6)         Stardy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Stripped Matrix (S4)       Redox Depressions (F8)         Stripped Matrix (S6)       WLRA 149B)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (if observed):       Type:         Type:       0 ¹ Depthet (inches):       Yes	ype:       C-Concentration, D-D-Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location, PL-Pore Lining, M=Matrix, Indicators for Problematic Hydric Soils*:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Indicators for Problematic Hydric Soils*:       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Patrie Redox (A16) (LRR K, L, R)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, M)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S9) (LRR K, L)         Stratified Layers (A5)       Loamy Mucky Mineral (F1)       Derk Histic Surface (S9) (LRR K, L)         Stratified Layers (A5)       Redox Dark Surface (F6)       Iron-Manganese Masses (F12) (LRR K, L, K)         Stratified Layers (S5)       Redox Dark Surface (F8)       Messe (F12) (URR K, L)         Stripped Matrix (S4)       Redox Dark Surface (F8)       Messe (F12) (URR K, L)         Stripped Matrix (S6)       Red Parent Material (F21)       Very Shallow Dark Surface (F12)         Jost Kedox (S5)       Red Parent Material (F21)       Very Shallow Dark Surface (F12)         Stripped Matrix (S6)       Red Parent Material (F21)       Very Shallow Dark Surface (F12)									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Histosol (A2)       Indicators for Problematic Hydric Soils ³ :         Black Histo (A2)       MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       S com Mucky Peat or Peat (S3) (LRR K, L, R)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, M)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1449, 145, 149E         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Mesic Spodic (TA6) (MLRA 144A, 145, 149E         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149E         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Stripped Matrix (S0)       No	ype:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ¹ : Indicators for Problematic Hydric Soils ¹ : Histic Epipedon (A2) Ilack Histic (A3) Iban Marky Histor (S1) (LRR K, L, R) Dark Surface (A1) Loamy Macky Mineral (F1) (LRR K, L) Depleted Delow Dark Surface (S8) (LRR K, L) Depleted Matrix (F2) Thic Dark Surface (A1) Depleted Matrix (F3) Thic Dark Surface (A1) Depleted Matrix (F3) Thic Dark Surface (A1) Depleted Matrix (F3) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Dark Surface (F1) (MR K, L) Depleted Matrix (S6) Sandy Gleyed Matrix (S6) Depleted Matrix (S6) Depleted Matrix (S6) Depleted Matrix (S6) Depleted Selses (S7) (LRR K, L) Singped Matrix (S6) Derk Surface (F7) Depleted Matrix (S6) Derk Surface (F1) (MR K, L44A, 145, 149 Sandy Gleyed Matrix (S6) Derk Surface (TF12) Striped Matrix (S6) Derk Surface (S7) (LRR K, MLRA 1449B) dicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: Depth (inches): Depth (inches): Depleted Set (Singer (									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :       Indicators for Problematic Hydric Soils ³ :	ype: C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Soils ¹ ;          Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Indicators for Problematic Hydric Soils ¹ ;          Histosol (A2)       MLRA 1498)         Black Histor (A2)       MLRA 1498)         Hydrogen Sulfde (A4)       Loamy Mucky Mineral (F1) (LRR K, L)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy McKy Mineral (S1)       Depleted Dark Surface (F7)         Sandy McKy K (S6)       Sond Kurky Mineral (S1)         Shipped Matrix (S3)       Redox Depressions (F8)         Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (F712) (MLRA 144, 145, 149)         Sandy McKy R (S5)       Very Shallow Dark Surface (F712) (MLRA 144, 145, 149)         Shipped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.         Strictive Layer (If Observed);       Yes		<del></del>							
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         _ Histo Epipedon (A2)       MLRA 149B)	ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       ?Location: PL=Pore Lining, M=Matrix.         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R,       Indicators:       Indicators:         Histosol (A2)       MLRA 149B)       Coast Praifie Redox (A16) (LRR K, L, MLRA 149B)       Coast Praifie Redox (A16) (LRR K, L, M         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Praifie Redox (A16) (LRR K, L, M         Yhdrogen Surface (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S9) (LRR K, L, M         Depleted Delw Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S8) (LRR K, L)         Thick Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Layers (A5)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Stratified Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)         Sandy Redox (S5)       Thin Dark Surface (F12) (LRR K, L)       Field Matrix (S4)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 1445, 149)         Stripped Matrix (S4)       Redox Cark Surface (F7)       Very Shallow Dark Surface (F12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         rdicators of hydrophytic vegetation and wetland hydrology									
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators: Indicators for Problematic Hydric Soils ³ : Indicators for Problematic Hydric Soils (LRR K, L, R) Stratified Layers (A5) Indicators for Mytrice (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Medox (S5) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Satrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ydric Soil Indicators: Histosol (A1) Histo Epideon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Straffied Layers (A5) Loamy Gleyed Matrix (F1) Loamy Gleyed Matrix (F2) Sandy Macky Mineral (S1) Depleted Dark Surface (F7) Sandy Macky Mineral (S1) Sandy Redxy (S6) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Thick Dark Surface (S7) (LRR R, MLRA 149B) Hight Epideon (A2) Harrix (S6) Hight Epideon (A2) Straffied Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (S9) (LRR K, L, R) Depleted Below Dark Surface (S9) (LRR K, L) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Depleted Matrix (S1) Depleted Dark Surface (F7) Sandy Macky (S6) Stripped Matrix (S4) Stripped Matrix (S6) User K, L) Hight Epideon (S5) Hight Epideon (S5) Hight Epideon (S5) Hight Epideon (S6) Hight Epideon Hight Ep									
ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       "Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soils ³ :         _ Histosol (A1)      Polyvalue Below Surface (S8) (LRR R,      2 cm Muck (A10) (LRR K, L, MLRA 149B)	yge: C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Locator: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solils*: Indicators for Problematic Hydric Solils*: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Histosol (A2) NLRA 149B) Coast Prairie Redox (A10) (LRR K, L, R, Black Histic (A3) Thin Dark Surface (S9) (LRR K, L) Depleted Delow Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L, P) Depleted Delow Dark Surface (A11) Depleted Matrix (F2) Polyvalue Selow Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Trinin Dark Surface (S10) (LRR K, L) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Pelemont Floodplain Solis (F19) (MLRA 1445, 149 Sandy Redox (S5) Redox Dark Surface (F7) Pelemont Floodplain Solis (F19) (MLRA 1445, 149 Sandy Redox (S5) Redox Depressions (F8) Weight (S1) Redox Depressions (F8) Mesic Spodic (TA8) (MLRA 1448, 144, 145, 149 		11 1724/1-7142/91							
ydric Soli Indicators:	Histos (A1)       Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2)       2 cm Muck (A10) (LRR K, L, MA 149B)         Histos (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Biack Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       S cm Muck (A10) (LRR K, L, M)         Stratified Layers (A5)       Loarny Mucky Minera (F1)       Dark Surface (S9) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F6)       Iron-Marganese Masses (F12) (LRR K, L, M)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesis Sordic (T64) (MLRA 144A, 145, 149)         Sandy Redox (S5)       Sandy Redox (S5)       Very Shallow Dark Surface (T712)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         rdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (if observed):       Yes         Type:       01         Depth (inches):       Hydric Soil Present? Yes       No         Imarks:       Hydric Soil Present? Yes       No	ype: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked Sand	d Grains.	*Location: PL=P	ore Lining, M=Ma	atrix.
	Histos (A1)       Polyvalue below Surface (S8) (LRR K, L, MLRA 149B)       2 cm MUck (A10) (LRK K, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Polyvalue below Surface (S9) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Polyvalue below Surface (S9) (LRR K, L)         Thic Dark Surface (A12)       Redox Dark Surface (F6)       Trion Dark Surface (S9) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Ark Surface (F7)       Piedmont Floodpilant Solids (F19) (MLRA 1445, 149)         Sandy Redox (S5)       Sandy Redox (S5)       Red Ox Depressions (F8)       Mesic Spodic (TA6) (MLRA 1444, 145, 149)         Stripped Matrix (S4)       Redox Depressions (F8)       Red Parent Material (F11)       Very Shallow Dark Surface (T71)         Dark Surface (S7) (LRR R, MLRA 149B)       Strate (F72)       Dialew Dark Surface (F72)       Red Parent Material (F21)         Stripped Matrix (S4)       Redox Depressions (F8)       Red Parent Material (F21)       Very Shallow Dark Surface (T712)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Other (Explain in Remarks)         ridicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No         Type:       0 </td <td>yaric Soli</td> <td>indicators:</td> <td></td> <td></td> <td></td> <td></td> <td>Indicators for Pro</td> <td></td> <td>50115 :</td>	yaric Soli	indicators:					Indicators for Pro		50115 :
	Initic Epipedol (A2)       MLRA 1495)       Coast Praine Redox (A15) (LRR K, L, R K, L, R         Black Histic (A3)	_ Histosol	(A1)		Polyvalue Below	v Surface (S8)	(LRR R,	2 cm Muck (A	10) (LRR K, L, M Dodov (A16) (LBI	LRA 149B)
Black Histic (LS)	Bitch Histic (Ad)	_ HISTIC EP	pipedon (A2)		MLKA 149B) Thin Dark Surfa	00 (S0) (I PP F		Coast Prairie	Redux (A 16) (LR	(IRPKIR)
Imployed Sunde (A)	Tytinger Guide (KY)	Black Hi Hydroge	ISUC (AS) on Sulfide (AA)		Thin Dark Suna	lice (39) (LKK r Aineral (E1) /I F	T, WILKA 149D)	5 cm wucky F	(S7) / IRR K I 1	(LRR R, L, R) /)
	Outside Delow Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S3) (URR K, L)         Thick Dark Surface (A12)       Redox Dark Surface (F6)       Iron-Manganese Masses (F12) (URR K, L, F         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Solis (F19) (MLRA 144, 145, 149         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144, 145, 149         Sandy Redox (S5)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (If observed):       Type:01^1         Depth (inches):       JELLAR       Hydric Soil Present? Yes No         Amarks:       No	Stratified	d Lavers (A5)		Loamy Gleved I	Matrix (F2)	(( (, L)	Polyvalue Bel	ow Surface (S8) (	LRR K. L)
Thick Dark Surface (A12)     Redox Dark Surface (F6)     Sandy Mucky Mineral (S1)     Depleted Dark Surface (F7)     Sandy Gleyed Matrix (S4)     Redox Depressions (F8)     Mesic Spodic (TA6) (MLRA 144A, 145, 149E     Sandy Redox (S5)     Stripped Matrix (S6)     Dark Surface (S7) (LRR R, MLRA 149B)     dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.     strictive Layer (if observed):     Type:01     Depth (inches):1      Mexic Soil Present? Yes No      marks:	Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, F Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 144 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: 0 ¹¹ Depth (inches): Hydric Soil Present? Yes No	Depleter	d Below Dark Surfac	e (A11)	Depleted Matrix	(F3)		Thin Dark Sur	face (S9) (LRR K	(, L)
Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 1449, 145, 149)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149)         Sandy Redox (S5)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (if observed):       Hydric Soil Present? Yes No         Type:       01         Depth (inches):       Yes	Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 144 Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. sstrictive Layer (if observed): Type: 0 ^{14} Depth (inches): HzMLP Hydric Soil Present? Yes No amarks:	Thick Da	ark Surface (A12)	- ( /	Redox Dark Su	face (F6)		Iron-Mangane	se Masses (F12)	(LRR K, L, R
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149I Red Parent Material (F21) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. setrictive Layer (If observed): Type: 0 11. Depth (inches): HCLL Hert Hert No Hydric Soil Present? Yes No	 Sandy N	/lucky Mineral (S1)		Depleted Dark S	Surface (F7)		Piedmont Floo	dplain Soils (F19	) (MLRA 149
	Sandy Redox (S5)Red Parent Material (F21) Stripped Matrix (S6)Very Shallow Dark Surface (TF12) Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. sstrictive_Layer (if observed): Type:Oth Depth (inches):HetherHydric Soil Present? Yes No marks:	Sandy G	Gleyed Matrix (S4)		Redox Depress	ions (F8)		Mesic Spodic	(TA6) (MLRA 14	4A, 145, 149E
	Stripped Matrix (S6)Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. setrictive Layer (if observed): Type:Oth Depth (inches):HetherHydric Soil Present? YesNo amarks:							Red Parent M	aterial (F21)	
_ Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  astrictive Layer (if observed): Type: I1 Depth (inches): Yes No amarks:		Sandy F	(edox (S5)					Very Shallow	Dark Surface (TF	12)
	adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  astrictive Layer (if observed): Type:h Depth (inches):HCIHetHydric Soil Present? YesNo	Sandy F Stripped	(S5) I Matrix (S6)							
andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed):  Type:	Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  setrictive Layer (if observed): Type:	Sandy F Stripped Dark Su	(edox (S5) I Matrix (S6) rface (S7) (L <b>RR R, N</b>	/ILRA 149	B)			Other (Explain	in Remarks)	
estrictive Layer (if observed): Type:	<pre>strictive_Layer (if observed): Type: Depth (inches):</pre>	_ Sandy F _ Stripped _ Dark Su	(edox (S5) I Matrix (S6) rface (S7) ( <b>LRR R, N</b>	MLRA 149	B)			Other (Explain	in Remarks)	
Type:O	Type:	Sandy F Stripped Dark Su ndicators o	(edox (S5) I Matrix (S6) rface (S7) ( <b>LRR R, M</b> f hydrophytic vegetal	<b>ILRA 149</b>	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain	in Remarks)	
Depth (inches): Yes No	Depth (inches):     Hydric Soil Present? Yes No       emarks:	Sandy F Stripped Dark Su ndicators o	kedox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegetat Layer (if observed):	ILRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain	in Remarks)	
emarks:	emarks:	Sandy F Stripped Dark Su ndicators o estrictive Type:	Redox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegeta Layer (if observed):	tion and w	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain	n in Remarks)	V
		Sandy F Stripped Dark Su ndicators o estrictive Type: Depth (ind	(edox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegetal Layer (if observed):	tion and w	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No_X
		Sandy F Strippec Dark Su ndicators o estrictive  Type: Depth (inc emarks:	rface (S5) I Matrix (S6) I face (S7) (LRR R, M f hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Prese	n in Remarks)	_ No_X
		_ Sandy F _ Strippec _ Dark Su ndicators o estrictive Type: Depth (inc	(edox (S5) I Matrix (S6) Irface (S7) (LRR R, M f hydrophytic vegetal Layer (if observed):		B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Prese	n in Remarks)	_ No_X
		_ Sandy F _ Strippec _ Dark Su dicators o estrictive Type: Depth (ind emarks:	(edox (S5) I Matrix (S6) Irface (S7) (LRR R, M f hydrophytic vegetat Layer (if observed):		B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No_X
		_ Sandy F _ Strippec _ Dark Su ndicators o estrictive Type: Depth (ind emarks:	(edox (S5) I Matrix (S6) Irface (S7) (LRR R, M f hydrophytic vegetat Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No_X
		_ Sandy F _ Strippec _ Dark Su ndicators o estrictive Type: Depth (ind emarks:	(edox (S5) I Matrix (S6) Irface (S7) (LRR R, M f hydrophytic vegetat Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Preser	nt? Yes	_ No_X
		_ Sandy F _ Strippec _ Dark Su ndicators o estrictive Type: Depth (ind emarks:	edox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegeta Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No_X
		_ Sandy F _ Strippec _ Dark Su dicators o estrictive Type: Depth (ind emarks:	edox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegeta Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (ind emarks:	edox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegeta Layer (if observed):	MLRA 149	B) etland hydrology mus	it be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (ini- emarks:	edox (S5) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ No _X
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (im emarks:	i Matrix (S6) I Matrix (S6) rface (S7) (LRR R, M f hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	niess disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (ini- emarks:	rface (S5) I Matrix (S6) I face (S7) (LRR R, M I hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	niess disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (ini- emarks:	(edox (S5) I Matrix (S6) Irface (S7) ( <b>LRR R, M</b> f hydrophytic vegetal <b>Layer (if observed):</b>	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (in emarks:	(edox (S5) I Matrix (S6) Irface (S7) ( <b>LRR R, M</b> f hydrophytic vegetal <b>Layer (if observed):</b>	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		Sandy F Strippec Dark Su ndicators o estrictive Type: Depth (inc emarks:	edox (S5) I Matrix (S6) Iface (S7) (LRR R, M hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Presen	n in Remarks)	_ NoX
		_ Sandy F _ Strippec _ Dark Su ndicators o <b>estrictive</b> Type: Depth (inc emarks:	edox (S5) I Matrix (S6) Iface (S7) (LRR R, M hydrophytic vegetal Layer (if observed):	MLRA 149	B) etland hydrology mus	t be present, u	nless disturbed	Other (Explain or problematic. Hydric Soil Prese	n in Remarks)	_ NoX
# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: LEPC		City/County:	Erie County	Sampling Date: 1	1/5/2014
Applicant/Owner: ITC Holdin	gs		State:	PA Sampling Point	WPA-KAS-031-PEM
Investigator(s): KAS	KO		Section, Township, F	Range S T	R
Landform (hillslope, terrace, etc.)	: Depression	Local Relie	(concave, convex, none	e): Concave	Slope(%) 0
Subregion (I RR or MI RA). I RF	R lat 41.95351	long{	30 370725	, Datum: NAD83	
Soil Man Unit Name: Mb		2011g		esification: PEM	
Are climatic / hydrologic condition	is on the site typical for this tim	e of year? Yes		o, explain in Remarks)	
Are Vegetation, Soil	_, or Hydrology, signific	cantly disturbed?	Are "Normal Circums	tances" present? Yes	X No
Are Vegetation, Soil	_, or Hydrology, natura	Illy problematic?	(If needed, explain a	any answers in Remarks.)	
SUMMARY OF FINDING	S - Attach a site map sh	nowing sampling p	ooint locations, tra	nsects, important f	eatures, etc.
Hydrophytic Vegetation Presen	t? Yes X No	Is the Sampled Area	1		
Hvdric Soil Present?	Yes X No	within a Wetland?	Yes	X No	
Wetland Hydrology Present?		If yos, optional Wotla	nd Sita ID WIDA KAS (	121	
Demondary					
Remarks:					
PEM portion of WPA-KAS-031.					
HYDROLOGY					
Wetland Hydrology Indicator	:S:		Secon	dary Indicators (minimum	of two required)
Primary Indicators (minimum of	one is required; check all that	apply)	<u> </u>	Surface Soil Cracks (B6)	· · ·
Surface Water (A1)	Water	-Stained Leaves (B9)		Drainage Patterns (B10)	
High Water Table (A2)	Aquati	c Fauna (B13)		Moss Trim Lines (B16)	
Saturation (A3)	Marl D	Deposits (B15)		Dry-Season Water Table (C2)	1
Water Marks (B1)	Hydrog	gen Sulfide Odor (C1)		Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidiz	ed Rhizospheres along Livi	ng Roots (C3)	Saturation Visible on Aerial In	nag.(C9)
Drift Deposits (B3)	Preser	nce of Reduced Iron (C4)		Stunted or Stressed Plants (D	1)
Algal Mat or Crust (B4)		t Iron Reduction in Tilled So	pils (C6)	Geomorphic Position (D2)	
Iron Deposits (B5)	Thin N	/luck Surface (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Ima	gery (B7) Other	(Explain in Remarks)		Microtopographic Relief (D4)	
Sparsely Vegetated Concave S	urface (B8)			FAC-Neutral Test (D5)	
Field Observations:					
Surface Water Present?	Yes <u>No X</u> C	Depth (inches):			
Water Table Present?	Yes <u>No X</u> D	Pepth (inches):	0		× N
Saturation Present?	Yes <u>No X</u> D	epth (inches):	0 Wetland H	ydrology Present? Y	es <u>X</u> No
(includes capillary fringe)	ugo monitoring well parial photos	provious inspections) if av	ailabla:		
Describe Recorded Data (stream ga	uge, morinoring weil, aenai photos,				
Pomarka:					
Remarks.					
1					



	i	Absolute	Dominant	Indicator	Dominance Test Workshe	et.		
Troc Stratum		<u>% Cover</u>	<u>Species</u>	<u>Status</u>	Number of Dominant Spec	ies		
Tree Stratum					That Are OBL, FACW, or F	AC:	1	(A)
Shrub Stratum					Total Number of Dominant			
Herb Stratum	(Plot size: <u>6 Ft</u> )				Species Across all Strata:		1	(B)
Typha latifolia		85 85	Y =Total Cover	OBL	Percent of Dominant Specie That Are OBL, FACW, or F	es AC: —	100.0%	(A/B)
Vine Stratum					Prevalence Index Worksh	eet:		
					Total % Cover of:	Mult	iply by:	
					OBL species 85	x 1 =	85	
					FACW species 0	x 2 =	0	
					FAC species 0	x 3 =	0	
					FACU species 0	x 4 =	0	
					UPL species 0	x 5 =	0	
					Column Totals: 85	(A)	85	(B)
					Prevalence Index = E	/A=	1.00	
					Hydrophytic Vegetation In	licators:		
					Rapid Test for Hydroph	ytic Veget	ation	
					X Dominance Test > 50%			
					X Prevalence Index ≤ 3.0			
					Problematic Hydrophyt	c Vegetati	on (Exp	lain)
					Indicators of hydric soil and we be present, unless disturbed c	etland hydro r problemat	logy must ic.	
					Definitions of Vegetation S	rata:		
					Tree – Woody plants 3in.(7.6 cm at breast height (DBH), regardles	or more in s of height.	diameter	
					Sapling/shrub – Woody plants lea and greater than 3.28 ft (1 m) tall	s than 3 in.	DBH	
					Herb – All herbaceous (non-wood size, and woody plants less than	y) plants, r 3.28 ft tall.	egardless	of
					Woody vines – All woody vines g height.	eater than	3.28 ft in	
					Hydrophytic Vegetation Present? ۲	es X	_No	
Remarks: (Include pho	to numbers here or on a separate sheet.	)			1			

S	0	I	L
~	~	-	-

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)						
(inches) Color (moist)	% Color (m	oist) %		Loc 2	Texture	Remarks
$\frac{(100000)}{0} = \frac{10000}{10000} \frac{10000}{10000}$	90 2 5YR 4	/8 10	<u> </u>	PI		
¹ Type: C=Concentration, D=Depletic	n, RM=Reduced Martix, (	CS=Covered or	Coated S	and Grai	ns. 4.ocation: PL=Pore L	ining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14)	Polyvalue MLRA 149 ☐ Thin Dark ☐ Loamy Mu ☐ Loamy Gle ☐ Depleted N ✔ Redox Dar ☐ Depleted D ☐ Redox Dep	Below Surface (SB) Surface (S9) (LF icky Mineral (F1) eyed Matrix (F2) Matrix (F3) rk Surface (F6) Dark Surface (F7 pressions (F8)	68) (LRR R, RR R, MLRA (LRR K,L) )	149B))	Indicators for Problema         2 cm Muck (A10) (LRR H         Coast Prairie Redox (A1         5 cm Mucky Peat or Peat         Dark Surface (S7) (LRR         Polyvalue Below Surface         Thin Dark Surface (S9) (Iron-Manganese Massee         Piedmont Floodplain So         Mesic Spodic (TA6) (ML         Red Parent Material (F2         Very Shallow Dark Surface         Other (Explain in Remar	tic Hydric Soils: ³ (, L, MLRA 149B) 6) (LRR K, L, R) at (S3) (LRR K, L, R) (K, L) (CRR K, L) (LRR K, L) (LRR K, L) (F12) (LRR K, L, R) (F12) (LRR K, L, R) (F12) (LRR P, S, T) RA 144A, 145, 149B) 1) ace (TF12) (LRR T, U) ks)
Restrictive Layer (if observ Type: Depth (inches): Remarks:	red):				Hydric Soil Present?	Yes X No

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: LEPC		City/County:	Erie County	Sampling Date: 11/5/2014			
Applicant/Owner: ITC Holding	S		State: PA	Sampling Point: WPA-KAS-031-PFO			
Investigator(s): KAS	КО		Section, Township, Range	a S T B			
Landform (hillslope terrace etc.):	Flat	L ocal Relief (	concave convex none).	None Slope(%) 0			
Subregion (LRR or MLRA): LRR	R Lat: 41.95351	Long: _80	370725				
	Lat. 41.90001	Longoo.					
Are climatic / hydrologic conditions	on the site typical for this ti	ime of year? Yes X	NO (If NO, ex	plain in Remarks)			
Are Vegetation, Soil	, or Hydrology, sign	ificantly disturbed?	Are "Normal Circumstance	s" present? Yes X No			
Are Vegetation, Soil	, or Hydrology, natu	irally problematic?	(If needed, explain any a	nswers in Remarks.)			
SUMMARY OF FINDINGS	- Attach a site map	showing sampling po	int locations, transe	cts, important features, etc.			
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area					
Hydric Soil Present?		within a Wetland?	Yes X	No			
Wetland Hydrology Present?		-					
	Yes X NO	If yes, optional Wetland	Site ID WPA-KAS-031-F				
Remarks: PEO portion of WPA-KAS-031 A	diacent to unknown stream						
HYDROLOGY							
Wetland Hydrology Indicators	:	at apply)	Secondary	Indicators (minimum of two required)			
		at apply)	Surfa	ce Soil Cracks (B6)			
Surface Water (A1)	Wa	ter-Stained Leaves (B9)	Drain	age Patterns (B10)			
Saturation (A3)	Aqu	atic Fauna (B13)	✓ Moss	Trim Lines (B16)			
Water Marks (B1)	∐ Mar	T Deposits (B15)	Dry-S	eason Water Table (C2)			
Sediment Deposits (B2)	∐ Hyd	rogen Sulfide Odor (C1)		sn Burrows (C8)			
Drift Deposits (B3)		aized Rhizospheres along Living	Roots (C3) V Satur	ation Visible on Aerial Imag.(C9)			
Algal Mat or Crust (B4)		sence of Reduced Iron (C4)		ad or Stressed Plants (D1)			
$\square$ Iron Deposits (B5)		ent Iron Reduction in Tilled Soils	(C6) Geom	orphic Position (D2)			
Inundation Visible on Aerial Image	erv (B7)	n Muck Surrace (C7)		Shallow Aquitard (D3)			
Sparsely Vegetated Concave Sur	face (B8)	er (Explain in Remarks)		Copographic Relief (D4)			
Field Observations:							
Surface Water Present?	Vos No X	Dopth (inchos):					
Water Table Present?	Yes X No	Depth (inches): 0					
Saturation Present?	Yes X No	Depth (inches): 0	Wetland Hydro	logy Present? Yes X No			
(includes capillary fringe)		<u> </u>					
Describe Recorded Data (stream gaug	je, monitoring well, aerial photo	s, previous inspections), if availa	ble:				
Remarks:							



	Absolute	Dominant	Indicator	Dominance Test Worksheet
<b>T O</b>	<u>% Cover</u>	Species	<u>Status</u>	Number of Dominant Species
Tree Stratum (Plot size: <u>30 Ft</u> )				That Are OBL, FACW, or FAC:4
Acer rubrum	75	Y	FAC	
Prunus serotina	15	N	FACU	I otal Number of Dominant Species Across all Strata: 4 (I
Populus deltoides	10	N	FAC	-
Shrub Stratum (Plot size: 30 Ft )	100	_=Total Cover		Percent of Dominant Species 100.0% (A
Cornus alba	10	Y	FACW	Prevalence Index Worksheet:
	10	=Total Cover		Total % Cover of: Multiply by:
Herb Stratum (Plot size: 6 Ft )				$\overline{OBL \text{ species}} \qquad 40 \qquad \overline{x \ 1 = 40}$
Phalaris arundinacea	25	Y	FACW	FACW species $45 \times 2 = 90$
Lemna minor	20	Y	OBL	$\frac{1}{10000000000000000000000000000000000$
Epilobium ciliatum	10	N	FACW	FAC species x =
Juncus effusus	10	N	OBL	FACU species 20 x4 - 60
Persicaria sagittata	10	N	OBL	UPL species X 5 =
Euthamia graminifolia	5	N	FAC	Column Totals: 195 (A) 480 (
Solidago canadensis	5	Ν	FACU	
	85	=Total Cover		Prevalence Index = B/A= 2.46
Vine Stratum				Hydrophytic Vegetation Indicators:
				Panid Test for Hydrophytic Vogetation
				X Dominance Test > 50%
				$X$ Prevalence Index $\leq 3.0$
				Problematic Hydrophytic Vegetation (Explain
				Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
				Tree – Woody plants 3in.(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes X No
emarks: (Include photo numbers here or on a separate sheet.	)			



S	0	I	L
~	~	-	-

Profile Descri	ption: (Describe to the	depth need	ed to document	t the india	cator or o	onfirm t	the absence of Indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	Keu0x F %	Type 1	Loc 2	Texture	Remarks
$\frac{(110100)}{0}$ to 12	10YR 3/1	<u> </u>	2 5YR 4/8	10	<u> </u>	 PI		
¹ Type: C=Cond	centration, D=Depletion,	RM=Reduce	ed Martix, CS=Co	overed or	Coated S	and Gra	ins. 4_ocation: PL=Pore Lining,	M=Matrix.
Hydric Soil In Histosol (A1 Histic Epipe Black Histic Hydrogen S Stratified La Depleted Be Thick Dark Sandy Much Sandy Gley Sandy Redo Stripped Ma Dark Surface I Indicators of hy	ndicators: ) don (A2) (A3) ulfide (A4) yers (A5) elow Dark Surface (A11) Surface (A12) sy Mineral (S1) ed Matrix (S4) ox (S5) utrix (S6) e (S7) (LRR R, MLRA 149E ydrophytic vegetation and w	s) etland hydrolo	<ul> <li>Polyvalue Below MLRA 149B)</li> <li>Thin Dark Surfac</li> <li>Loamy Mucky Mii</li> <li>Loamy Gleyed M.</li> <li>Depleted Matrix (</li> <li>Redox Dark Surfa</li> <li>Depleted Dark Surfa</li> <li>Redox Depression</li> </ul>	Surface (S e (S9) (LRI neral (F1) ( atrix (F2) (F3) ace (F6) urface (F7) ons (F8) t, unless di	8) (LRR R R R, MLRA (LRR K,L)	149B)) problema	Indicators for Problematic Hy         2 cm Muck (A10) (LRR K, L, M         Coast Prairie Redox (A16) (LR         5 cm Mucky Peat or Peat (S3)         Dark Surface (S7) (LRR K, L)         Polyvalue Below Surface (S8) (         Thin Dark Surface (S9) (LRR K         Iron-Manganese Masses (F12)         Piedmont Floodplain Soils (F12)         Red Parent Material (F21)         Very Shallow Dark Surface (TF         Other (Explain in Remarks)	y <mark>dric Soils:</mark> ³ LRA 149B) R K, L, R) (LRR P, S, T) 4A, 145, 149B) 12) (LRR T, U)
Restricti     Type:     Depth (inched)	ve Layer (if observed	d):					Hydric Soil Present? Y	es X No
Remarks:								

# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: LEPC		City/County: Erie C	County Sampling Date: 11/5/2014		
Applicant/Owner: ITC Holdings			State: PA Sampling Point: UPL-031		
Investigator(s): KAS	КО	Section	ı, Township, Range S T R		
Landform (hillslope, terrace, etc.):	Hillslope	Local Relief (concave,	, convex, none): Convex Slope(%) 0		
Subregion (LRR or MLRA): LRR R	Lat: 41.953928	Long: -80.371861	Datum: NAD83		
Soil Map Unit Name: R			NWI Classification:		
Are climatic / bydrologic conditions c	on the site typical for this time	e of vear? Yes X No	(If No, explain in Remarks)		
Are Vegetation Soil	or Hydrology signific	confly disturbed?	(in the second se		
Are Vegetation Soil	or Hydrology, signing	lly problematic?			
SUMMARY OF FINDINGS -	- Attach a site map sh	in problematic: (If nee	ided, explain any answers in Remarks.)		
Hydrophytic Vegetation Present?	Ves No Y	Is the Sampled Area			
Hydric Soil Present?		within a Wetland?	Yes No X		
Wetland Hydrology Present?		Kusa antional Watland Cita ID			
		It yes, optional wetland Site ID			
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of on	ie is required; check all that a	apply)			
Surface Water (A1)	Water	Stained Leaves (B9)	Surface Soll Cracks (B6)     Drainage Patterns (B10)		
High Water Table (A2)		c Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl D	eposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydroc	gen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidize	ed Rhizospheres along Living Roots (C	3) Saturation Visible on Aerial Imag.(C9)		
Drift Deposits (B3)	Presen	ce of Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Iron Donosits (B5)		t Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		
Inundation Visible on Aerial Imagen	v (B7) Thin M	luck Surface (C7)	Shallow Aquitard (D3)		
Sparsely Vegetated Concave Surfa	uce (B8)	(Explain in Remarks)	Microtopographic Relief (D4)     EAC Neutral Test (D5)		
Field Observations:					
Surface Water Present?		anth (inchas):			
Water Table Present?	Yes No X D	epth (inches):			
Saturation Present?	Yes No X D	epth (inches):	Wetland Hydrology Present? Yes No_X_		
(includes capillary fringe)					
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, p	previous inspections), if available:			
D					
Remarks:					



/EGETATION Use scientific names of plants				Sampli	ng Point	t: UPL-	-031	
	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Wo	rksheet	:		
Tree Stratum				Number of Dominant	Species	3	0	(A)
Shrub Stratum				That Are OBL, FACW	√, or ⊢A0	C:	0	_ (^)
				Total Number of Domi	inant			
Plot Size: <u>6 Ft</u> )	20	V	EACU	Species Across all Str	ata:		2	(B)
		- <u> </u>	FACU	Percent of Dominant S	Species		0.0%	(A/R)
Trifolium pratense	15	N	FACU	That Are OBL, FACW	, or FAC	:	0.070	_ (700)
UID	15	N		Prevalence Index Wo	orkshee	t:		
Aster spp.	10	N	NI	Total % Cover of:		Multi	ply by:	
	80	=Total Cover		OBL species	0	x 1 =	0	
Vine Stratum				FACW species	0	x 2 =	0	
				FAC species	0	x 3 =	0	
				FACU species	55	x 4 =	220	
				UPL species	0	x 5 =	0	
					55	(Δ)	220	(B)
				Column Totals:		_(^) _	220	<u>(</u> D)
				Prevalence Inde	<i>∋x = B/A</i> :	=	4.00	
				Hydrophytic Vegetati	on Indic	ators:		
				Rapid Test for Hy	drophyti	c Vegeta	ation	
				Dominance Test >	> 50%			
				Prevalence Index	≤ 3.0			
				Problematic Hydro	ophytic \	Vegetatio	on (Exp	plain)
				Indicators of hydric soil a be present, unless distu	and wetla irbed or p	and hydro roblemati	logy mus ic.	t
				Definitions of Vegetati	ion Stra	ta:		
				Tree – Woody plants 3in.(7 at breast height (DBH), reg	'.6 cm) or jardless c	r more in of height.	diameter	
				Sapling/shrub – Woody pla and greater than 3.28 ft (1	ints less t m) tall.	han 3 in.	DBH	
				Herb – All herbaceous (nor size, and woody plants less	า-woody) s than 3.2	plants, re 28 ft tall.	gardless	of
				Woody vines – All woody v height.	ines grea	iter than 3	3.28 ft in	
				Hydrophytic Vegetation Present?	? Yes		No	x

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

Hydrophytic vegetation not dominant.

Yes

No X

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indi	icators.)
(inches) Color (moist) % Color (moist) % Type 1 Loc 2 Texture	Remarks
¹ Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. ² Location	: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Dependent, KM=Reduced wartix, CS=COVered or Coaled Sand Grains.       4.Location         Histosol (A1)       Indicators:       Indicators for         Histosol (A1)       Image: C=Concentration (CA)       2 on Muck         Black Histic (A3)       Image: C=Concentration (CA)       2 on Muck         Histosol (A1)       Image: Cancentration (CA)       2 on Muck         Black Histic (A3)       Image: Cancentration (CA)       2 on Muck         Stratified Layers (A5)       Image: Cancentration (CA)       2 on Muck         Depleted Dark Surface (A1)       Depleted Matrix (F3)       1 non-Nange         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       1 on Mesic Spoe         Sandy Redox (S5)       Image: Cancentration (CA)       1 on Mesic Spoe         Type:       Reok       1 on Mucky       1 on Mick (CA)	PL=Pore Lining, M=Matrix.          r Problematic Hydric Soils:       3         k (A10) (LRR K, L, MLRA 149B)         irie Redox (A16) (LRR K, L, R)         sy Peat or Peat (S3) (LRR K, L, R)         ace (S7) (LRR K, L)         Below Surface (S8) (LRR K, L)         Surface (S9) (LRR K, L)         anese Masses (F12) (LRR K, L, R)         Floodplain Soils (F19) (LRR P, S, T)         odic (TA6) (MLRA 144A, 145, 149B)         at Material (F21)         ow Dark Surface (TF12) (LRR T, U)         olain in Remarks)

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

$Project/Site \mid f \in C$	Sampling Date: 115714
Applicant/Owner I E C	State: DA Sampling Point UDA V/K-037
Investigator(e):	
	IL = so 277022(1) stope (%).
Subregion (LRR or MLRA): Lat:	TT Long: <u>a) 5 1 Star</u> Datum: <u>NAUS</u>
Soil Map Unit Name: KINH	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es 🟒 No (If no, explain in Remarks.)
Are Vegetation, Soil or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes <u>V</u> No
Are Vegetation $\underline{\mathcal{N}}$ , Soil $\underline{\mathcal{N}}$ , or Hydrology $\underline{\mathcal{N}}$ naturally problema	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
	Is the Sampled Area
Hydric Soil Present? Yes X	within a Wetland? Yes V No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID: WPA-V45-0257
Remarks: (Explain alternative procedures here or in a separate report.)	
WPA-VAS-037	
PEM	
Hautting SPA-V45-018	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	s (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odd	or (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)     Presence of Reduced     Deposits (B4)     Presence of Reduced	liron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reductio	A In Tilled Solis (C6) Geomorphic Position (D2)
Inundation Visible on Aerial Imageny (B7) Other (Evaluation Contract Contra	marks) Shallow Aquitatu (D3)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes X No Depth (inches): +	With Wetland Hydrology Present? Yes <u></u> No
(includes capillary fringe)	vious inspections) if available
NAM	
Remarks:	
None	

Sampling Point:

VEGETATION - Use scientific names of plants.

20.	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 20)	% Cover	Species?	Status	Dominance Test worksheet:
1 DANN				Number of Dominant Species
und				That Are OBL, FACVV, or FAC: (A)
2				Total Number of Dominant
4				Percent of Dominant Species (D) (A/B)
5	<u> </u>			
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	er	OBL species x 1 =
Sanling/Shruh Stratum (Plot size)				FACW species x 2 =
Khame and Callocate in	N	V	TAA	FAC species x 3 =
1. MIAMANS LATIVITICA	$\alpha \cup$	4`	TR.	
2				
3				
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
7	20			$\frac{1}{\sqrt{2}}$ 2 - Dominance Test is >50%
C1	D	= Total Cove	er	$\frac{1}{2} = \frac{1}{2} = \frac{1}$
Herb Stratum (Plot size: 10)	14-	~ 1	A	4 - Morphological Adaptations ¹ (Provide supporting
1. travans annauria	40	7	VHCU	) data in Remarks or on a separate sheet)
2. DIARGA COVOLUMDS	<u>40</u>	<u> </u>	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Amprisia avternisti falla	10	$\underline{N}$	FACU	Indicators of hydric soil and wetland hydrology must
A NINVIK OFFUSUS	10	Ni	ner	be present, unless disturbed or problematic.
5 Spilobum cilicitim	10	Ň	HACIN	Definitions of Vegetation Strata:
e				Tree Meady plants 2 in (7.6 cm) or more in diameter
			;	at breast height (DBH), regardless of height.
				Sapling/shrub Woody plants less than 3 in DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				Here All harbassous (non woody) plants, recordlass of
10	<u> </u>			size, and woody plants less than 3.28 ft tall.
11				
12.				woody vines – All woody vines greater than 3.28 it in height.
	95	- Total Cove		
$\exists j$	1			
Woody Vine Stratum (Plot size:)				
1. NOV				
2				Hydrophytic Vegetation
3.				Present? Yes <u>No</u> No
4				
4	0			
	$\underline{\circ}$	= Total Cove	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Profile Description: Closering to the depth needed to document the indicator or confirm the absence of indicators.) Depth Color (mass) % Color (mass) % Color (mass) % Type Color (mass) %	SOIL								Sampling Point:
Depth       Matrix       Redex Features       Loc ² Testue       Remarks         Imple:       Imple: </th <th>Profile Des</th> <th>cription: (Describ</th> <th>e to the dep</th> <th>oth needed to docu</th> <th>ment the</th> <th>e indicator</th> <th>or confirm</th> <th>n the absence</th> <th>of indicators.)</th>	Profile Des	cription: (Describ	e to the dep	oth needed to docu	ment the	e indicator	or confirm	n the absence	of indicators.)
Indexes	Depth	Matrix		Red	ox Featu	res 1	12	Tartura	Demedia
Type:       C-Concentration. DeDepletion. RN-Reduced Matrix, MS=Masked Sand Grains.       ************************************	(inches)	Color (moist)		Color (moist)	<u>%</u>		LOC		Remarks
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix         Hatse Soli Indicators:       Indicators:       Indicators:         Hatse Epipedon (A2)       Polyvalue Below Surface (S3) (LRR K, L, R)       Coast Praine Redox (A16) (LRR K, L, R)         Black Hatla (A3)       Thin Dirk Surface (S3) (LRR K, LR)       Depleted Below Surface (S3) (LRR K, L, R)         Black Hatla (A3)       Loarny Mucky Mineral (F1) (LRR K, LL)       Depleted Below Surface (S3) (LRR K, L, R)         Depleted Below Dark Surface (S4) (LRR K, L, R)       Depleted Below Surface (S4) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Below Surface (S5)       Trin Dark Surface (S6) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Below Surface (S4) (LRR K, L, R)       Depleted Below Surface (S4) (LRR K, L, R)         Sandy Glaved Matrix (S4)       Red Dark Surface (F7)       Trin Dark Surface (S5)       Trin Dark Surface (S4) (LRR K, L, R)         Sandy Glaved Matrix (S4)       Red Dark Surface (F7)       Two Mucky Hatlare (F7)       Two Mucky Hatlare (F7)         Sandy Claved (S5)       Red Parent Material (F21)       Way Shallow Dark Surface (F7)       Two Mucky Hatlare (F7)         Sandy Redox (S5)       Red Parent Material (F21)       Way Shallow Dark Surface (F7)       Way Shallow Dark Surface (F7)         Sandy Redox (S5)       Red Parent Material (F21)       Wa	0-0	IUYK	40_	104K-18	10	_12	M	100M	·
Type:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix         Histoso (A1)       Polyvalue Bclow Surface (S8) (LRR R, Mack (A10) (LRR K, L, R)       Indicators for Problematic Hydric Solis':						-			
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location:       PL=Pore Lining, M=Matrix.         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location:       PL=Pore Lining, M=Matrix.         Histoc Epideon (A2)       MLRA 1498)       Indicators       Indicators for Problematic Hydric Soils':         Histoc Epideon (A2)       MLRA 1498)       Coast Prainie Redox (A16) (LRR K, L, M)         Black Histic (A3)       Thin Dark Surface (S9) (LRR K, N, L, M)       Dark Surface (S7) (LRR K, L, M)         Depleted Boor Dark Surface (A11)       Depleted Matrix (F2)       Dark Surface (S9) (LRR K, L, M)         Sandy Nucky Mineral (S1)       Depleted Dark Surface (F7)       Pleidmont Hoodplain Soils (LRK K, L, M)         Sindped Matrix (C8)       Redox Dark Surface (F7)       Pleidmont Hoodplain Soils (F19) (MLR A 1495)         Sindped Matrix (C8)       Redox Dark Surface (F7)       Pleidmont Hoodplain Soils (F19) (MLR A 1495)         Sindped Matrix (C8)       Redox Dark Surface (F7)       Pleidmont Hoodplain Soils (F19) (MLR A 1495)         Indicators of hydrophylic vegotation and wetland hydrology must be present, unless disturbed or problematic.       Reservicite: Type:         Dark Surface (S7) (LRR R, MLRA 1498)       Hydric Soil Present?       No         Thries       Hydric Soil Present?       No       No									
Type:       Co-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators (MLRA 1498)       Coast Praine Redox CAR (L, R)         Histic Epipedon (A2)       MLRA 1498)       Coast Praine Redox CAR (L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 1498)       Som Mucky Menal (F1) (LRR K, L)         Depleted Bow Dark Surface (A12)       Loamy Gleyed Matrix (F2)       Thin Dark Surface (S9) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Polyvalue Belefed Matrix (F2)         Sandy Redox (S5)       Redox Dark Surface (F7)       Peleformor Floodpian Solis (F19) (MLRA 1498)         Sandy Redox (S5)       Redox Depressions (F8)       Network Solis (F19) (MLRA 1446, 145, 1458)         Sandy Redox (S5)       Simped Matrix (S4)       Depleted Dark Surface (F7)       Peleformor Floodpian Solis (F19) (MLRA 1448)         Sandy Redox (S5)       Simped Matrix (S4)       Depleted Surface (F7)       Peleformor Floodpian Solis (F19) (MLRA 1448)         Sandy Redox (S5)       Sandy Redox (S5)       Head Samt Material (F21)       Very Shallow Dark Surface (F7)         Dark Surface (S7) (LRR R, MLRA 1498)       Other (Explain in Remarks)       No         Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.       No				0		- :	2		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix,         Indicators for Problematic Hydric Solie 5:          Histo:       Polyvalue Below Surface (S9) (LRR R,         Histo:       Indicators for Problematic Hydric Solie 5:          Histo:       Polyvalue Below Surface (S9) (LRR R,         Histo:       Coast Prain Redox (A16) (LRR K, L, R)          Biack Histic (X3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)        Coast Prain Redox (A16) (LRR K, L, R)          Startified Layers (A5)       Loamy Gleyed Matrix (F2)        Polyvalue Beled Matrix (F2)        Polyvalue Beled Matrix (F2)          Thick Dark Surface (K12)       Redox Dark Surface (F6)        Polyvalue Beled Matrix (F2)        Polyvalue Beled Matrix (F2)          Sandy Mucky Mineral (S1)       Depleted Matrix (F2)        Polyvalue Beled Matrix (F2)        Polyvalue Beled Matrix (F2)          Sandy Mucky Mineral (S1)       Redox Depressions (F8)        Information Matria (F1) (RR (R, MLRA 149E)          Sandy Mucky Mineral (S1)       Redox Dark Surface (F7)        Polyvalue Beled Dark Surface (F7)        Polyvalue Beled Dark Surface (F7)          Sandy Mucky Mineral (S1)       Redox Dark Surface (S7) (LRR R, MLRA 149B)        Cotter (Explain in Remarks)          Indicators of hydrophytic vegetation and wetland hydrology must be present, unl				3					
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         Hydroic Soil Indicators:       Polyvalue Below Surface (SB) (LRR R, MLRA 149B)       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Muck (A10) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR K, L)       Dark Surface (S13) (LRR K, L, R)         Depleted Below Dark Surface (A11)       Loamy Mucky Mineral (F1) (LRR K, L)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmatria Surface (S9) (LRR K, L, R)         Sandy Glecyd Matrix (S4)       Redox Dark Surface (F7)       Piedmatria (F12) (MLRA 149B)         Sandy Glecyd Matrix (S4)       Redox Depressions (F8)       Redox Surface (S7) (LRR K, L)         Shriped Matrix (S6)       Urer Manganese Masses (F12) (LRR K, L)       Other (Explain in Remarks)         Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (F7)       Piedmatria (F12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       Nemarks:         Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Type:									
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       *Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Soils*:         Histoc Epipedon (A2)       Polyvalue Below Surface (S8) (LRR R, MLRA 149B)       2 cm Muck (A10) (LRR K, L, LRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Muck (A10) (LRR K, L, R)         Privative Below Surface (A11)       Learny Mucky Mineral (F1) (LRR K, L)       Dark Surface (S9) (LRR K, L)         Depleted Matrix (F2)       Depleted Matrix (F2)       Dark Surface (S9) (LRR K, L)         Sandy Gleeyd Matrix (S1)       Depleted Matrix (F2)       Pelotymatrix (F3)         Sandy Cleeyd Matrix (S1)       Depleted Matrix (F3)       Red Arafta (F2)         Sandy Cleeyd Matrix (S1)       Depleted Matrix (F3)       Red Arafta (F2)         Sandy Cleeyd Matrix (S4)       Red ox Depressions (F6)       Red Parem Material (F2)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         'Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:							3	23	E
Type:       C-Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators: Histosol (A1) Histic Epipedon (A2) Histic Epipedon (CA) Histic Epipeon (CA) Histic Epipeon (CA) Histic E		·							
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       **Lecation: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: 2 cm Muck (A10) (LRR K, L, MLRA 149B)         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, MLRA 149B)       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Black Heits (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Muck (A10) (LRR K, L, M)         Depleted Below Dark Surface (A11)       Learny Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, M)         Depleted Below Dark Surface (A12)       Depleted Below Surface (F6)       Thin Dark Surface (F12) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedetom Masses (F12) (LRR K, L, R)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spoale (T48) (MLRA 1445, 1454, 1454, 1454)         Sandy Redox (S5)       Stripped Matrix (S4)       Redox Depressions (F8)       Mesic Spoale (T48) (MLRA 1445, 1454, 1454)         Dark Surface (S7) (LRR K, L, R)       Depleted Matrix (S4)       Redox C17(12)       Very Shallow Dark Surface (T12)         Sandy Redox (S5)       Stripped Matrix (S4)       Redox C17(12)       Very Shallow Dark Surface (T12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)       No       Mesic Soil Present?         Indicators of hydrophytic vegetation and wetland hydrology must be present, u		-					o <u></u>		
Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, MLRA 149B)       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Histic Epipedon (A2)       MLRA 149B)       5 cm Muck (A10) (LRR K, L, R)         Black Histo (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Muck (A10) (LRR K, L, R)         Stratified Layers (A5)       Loamy Muck (Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, R)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       Trinin Dark Surface (S9) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Matrix (F3)       Trinin Dark Surface (S12) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Matrix (F3)       Trinin Dark Surface (S12) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Solis (F19) (MLRA 149B)         Stripped Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 149B)         Stripped Matrix (S5)       Red Parent Material (F21)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Return Matrix       F3       No         Depleting (nches):       Hydric Soil Present?       No         Depleting (nches):       No       No </td <td>¹Type: C=C Hydric Soil</td> <td>Concentration, D=De Indicators:</td> <td>pletion, RM</td> <td>=Reduced Matrix, M</td> <td>/IS=Mask</td> <td>ed Sand Gr</td> <td>ains.</td> <td>²Location Indicators</td> <td>: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils³:</td>	¹ Type: C=C Hydric Soil	Concentration, D=De Indicators:	pletion, RM	=Reduced Matrix, M	/IS=Mask	ed Sand Gr	ains.	² Location Indicators	: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histic Epipedon (A2)       MLRA 149B)       Coast Praine Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, R)         Stratified Layers (A5)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, R)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (F6)       Thin Dark Surface (F6)         Sandy Gleyed Matrix (S4)       Depleted Dark Surface (F7)       Piedmont Floodplain Solis (F12) (LRR K, L, R)         Sandy Gleyed Matrix (S6)       Redox Depressions (F8)       Mesic Spoit (TA6) (MLRA 1449, 145, 149B)         Stripped Matrix (S6)       Wersy Shallow Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (F7)         Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (S7) (LRR R, MLRA 149B)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Type:       Parent Material (S1)         Depth (Inches):       Hydric Soil Present?       Yes       No         Remarks:       Hydric Soil Present?       Yes       No	Histoso	l (A1)		Polyvalue Belo	ow Surfac	æ (S8) (LRI	R,	2 cm N	/luck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)	Histic E	pipedon (A2)		MLRA 1498	3)			Coast	Prairie Redox (A16) (LRR K, L, R)
Hydrogen Sulide (A4)       Loamy Mucky Mineral (F1) (LRR K, L)       Dark Surface (S7) (LRR K, L, M)         Stratified Layers (A5)       Loamy Mucky Mineral (F2)       Polyvalue Below Surface (S0) (LRR K, L)         Depleted Below Dark Surface (A1)       Depleted Matrix (F3)       Trin Dark Surface (S0) (LRR K, L, R)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Pieldmont Floodpillan Solis (F10) (MLRA 144A, 145, 149B)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Pieldmont Floodpillan Solis (F10) (MLRA 144A, 145, 149B)         Stripped Matrix (S6)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149B)         Stripped Matrix (S6)       Very Shallow Dark Surface (F7)       Pieldmont Floodpillan Solis (F12) (MLRA 144A, 145, 149B)         Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Restrictive Layer (if observed):         Type:       Type:       Hydric Soll Present? Yer       No         Depth (inches):       Hydric Soll Present? Yer       No	Black H	listic (A3)		Thin Dark Sur	face (S9)	(LRR R, M	LRA 149E	3) 5 cm M	Aucky Peat or Peat (S3) (LRR K, L, R)
Statilied Layers (Xa)       Conjude below Dark Surface (A11)       Polytede Matrix (F2)       Thio Dark Surface (S3) (LRR K, L)         Thick Dark Surface (A12)       Depleted Matrix (F3)       Thin Dark Surface (S3) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Matrix (S4)       Peletem Matrix (S4)         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spotic (TA6) (MLRR 44A, 145, 149B)         Stripped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (If observed):       Type:         Type:       Hydric Soil Present?       No         Remarks:       No       No	Hydrog	en Sulfide (A4)		Loamy Mucky	Mineral (	F1) ( <b>LRR K</b> ⁻a)	, L)	Dark S	
Depicted below Control (CHT)       Copiced data (CHT) <td< td=""><td> Straume</td><td>d Layers (Ab) A Below Dark Surfa</td><td>CP (A11)</td><td>Depleted Matr</td><td>iv (E3)</td><td>-2)</td><td></td><td> Folyva Thin D</td><td>ark Surface (S9) (LRR K I)</td></td<>	Straume	d Layers (Ab) A Below Dark Surfa	CP (A11)	Depleted Matr	iv (E3)	-2)		Folyva Thin D	ark Surface (S9) (LRR K I)
	Depiete	ark Surface (A12)		Redox Dark S	urface (Fi	6)		Iron-M	anganese Masses (F12) (LRR K. L. R)
Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 149B)         Sandy Redox (S5)       Red Parent Material (F21)         Stipped Matrix (S6)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:         Type:       Hydric Soil Present?         Yee       No         Remarks:       No	Sandy	Mucky Mineral (S1)		Depleted Dark	Surface	(F7)		Piedme	ont Floodplain Soils (F19) (MLRA 149B
Sandy Redox (S5)	Sandy	Gleved Matrix (S4)		Redox Depres	sions (F8	(· · · ) })		Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks)	Sandy	Redox (S5)			· · · · · ·	/		Red Pa	arent Material (F21)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)	Strippe	d Matrix (S6)						Very S	hallow Dark Surface (TF12)
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.   Restrictive Layer (if observed):   Type:	Dark Si	urface (S7) (LRR R,	MLRA 149	B)				Other	(Explain in Remarks)
Type:	³ Indicators of Restrictive	of hydrophytic veget	ation and we	etland hydrology mu	ust be pre	sent, unless	s disturbe	d or problematio	2
Depth (inches): No	Type:	none							
<pre>temarks:</pre>	Depth (ir	nches):						Hydric Soil	Present? Yes No
	Remarks:								
				¥.					

### WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: EC City/County:	VI Sampling Date: 11/5/14
Applicant/Owner:	State: PA Sampling Point: UPC-1/4K-03-
Investigator(s): VAC VO Section Townsh	in Range: NZM Q UN DA
Landform (hillslone terrace etc.): WTMA ()	
	Long 20 3 B 921 Stope (16)
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation $N_{1}$ , Soil $N_{2}$ , or Hydrology $N_{1}$ significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology / naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling po	pint locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoV Is the Sa	mpled Area
Hydric Soil Present? Yes Nov	Wetland? Yes <u>No X</u>
Wetland Hydrology Present? Yes No V If yes, op	tional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
UPL-1645-032	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	g Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted of Stressed Plants (D1)
Algal Mat of Crust (B4) Recent Iron Reduction in Tilled 3	Solis (C6) Geomorphic Position (D2)
Indition Visible on Aerial Imageny (B7) Other (Evaluation Visible on Aerial Imageny (B7) Other (Evaluation in Remarks)	Shallow Aquitatu (D3)
Sparsely Vegetated Concave Surface (B8)	EAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	Δ
Saturation Present? Yes <u>No </u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ections), if available:
NON	
Remarks:	
non	

Sampling Point
----------------

VEGETATION - Ose scientific flattes of plattes			Sampling Folin.
Tree Stratum (Plot size: 30 ')	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Nove			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		······	Total Number of Dominant
3			Species Across All Strata: (B)
4		······································	Percent of Dominant Species
5		·	That Are OBL, FACVV, of FAC: (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of:Multiply by:
K-1	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: )			FACVV species X 2 =
1. 10000			FAC species x 3
2	<u> </u>	<u> </u>	UPL species x 5 =
3,			Column Totals: (A) (B)
4			Prevalence Index = B/A =
5			
6			Hydrophytic Vegetation Indicators:
7	$\overline{\gamma}$		1 - Rapid Test for Hydrophylic Vegetation
5	$\underline{\bigcirc}$	= Total Cover	$3 - Prevalence Index is \leq 3.0^{1}$
Herb Stratum (Plot size:)	17	N -	4 - Morphological Adaptations ¹ (Provide supporting     data in Remarks or on a separate sheet)
2 PLANTORD HTLESING	5	N FACIA	Problematic Hydrophytic Vegetation ¹ (Explain)
3 Glucine may	55	Y (P)	¹ Indicators of hydric soil and watland hydrology must
1 Trafelijan DiAvense	10	N FACU	be present, unless disturbed or problematic
5. Schung viridist	10	NIP	Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	·		Sanling/shruh - Woody plants less than 3 in DBH
8 9.			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		·	Woody vines – All woody vines greater than 3.28 ft in
12	~		height.
$\leq 1$	85	= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: $\underline{\partial \bigcup}$ )			
1. NON	<u> </u>		
2			Vegetation
3			Present? Yes No
4			7
	$\bigcirc$	= Total Cover	
Remarks: (Include photo numbers here or on a separate s	sheet.)		
Wone			
1			

weight	Matrix Color (moist) UVP 3 (2 	<u>%</u> ( <u>(</u> ) 	Rec Color (moist)	lox Features	Type ¹ _ Loc ²		Remarks
ype: C=Conc ydric Soil Ind Histosol (A ⁻ Histosol (A ⁻ Histic Epipe Black Histic Hydrogen S Stratified La Depleted Bo	Color (moist) UVP 3 (2) Color (moist) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (2_) (	<u>%</u> ( <u>(</u> )) 	Color (moist)		<u>Type'</u> Loc'		
ype: C=Conc ydric Soil Ind Histosol (Ar Histoc Epipe Black Histic Hydrogen S Stratified La Depleted Bo	centration, D=Deple Jicators: 1)	(Q)	Reduced Matrix, M			_ 1 <i>0</i> 0 <i>m</i> ,	
ype: C=Conc ydric Soil Ind Histosol (A1 Histic Epipe Black Histic Hydrogen S Stratified La Depleted Bo	centration, D=Deple dicators: 1)	etion, RM=1	Reduced Matrix, M				
ype: C=Conc ydric Soil Ind Histosol (Ar Histic Epipe Black Histic Hydrogen S Stratified La Depleted Bo	centration, D=Deple dicators : 1)		Reduced Matrix, M				
ype: C=Conc ydric Soil Ind Histosol (A1 Histic Epipe Black Histic Hydrogen S Stratified La Depleted Bo	centration, D=Deplo <b>licators</b> : 1)		Reduced Matrix, N				
ype: C=Conc /dric Soil Ind _ Histosol (A ¹ _ Histic Epipe _ Black Histic _ Hydrogen S _ Stratified La _ Depleted Bo	centration, D=Depl licators: 1)		Reduced Matrix, N				
ype: C=Conc /dric Soil Ind _ Histosol (A1 _ Histic Epipe _ Black Histic _ Hydrogen S _ Stratified La _ Depleted Ba	centration, D=Deple <b>licators</b> : 1)		Reduced Matrix, N				
ype: C=Conc /dric Soil Ind _ Histosol (A ¹ _ Histic Epipe _ Black Histic _ Hydrogen S _ Stratified La _ Depleted Bo	centration, D=Depl dicators: 1)	etion, RM=I	Reduced Matrix, N				
ype: C=Conc /dric Soil Ind _ Histosol (A1 _ Histic Epipe _ Black Histic _ Hydrogen S _ Stratified La _ Depleted Bo	centration, D=Deple dicators: 1)	etion, RM=I	Reduced Matrix, N				
ydric Soil Ind _ Histosol (A1 _ Histic Epipe _ Black Histic _ Hydrogen S _ Stratified La _ Depleted Be	dicators: 1)		Neuluccu Matrix, I	 /S=Masked S	and Grains	^2 ocation: PI =Po	re Lining M=Matrix
<ul> <li>Histosol (A1</li> <li>Histic Epipe</li> <li>Black Histic</li> <li>Hydrogen S</li> <li>Stratified La</li> <li>Depleted Ba</li> </ul>	.1)			13-Maskeu 3	anu Grains.	Indicators for Prok	plematic Hydric Soils ³ :
<ul> <li>Histic Epipe</li> <li>Black Histic</li> <li>Hydrogen S</li> <li>Stratified La</li> <li>Depleted Ba</li> </ul>	,		Polyvalue Bel	ow Surface (S	8) ( <b>LRR R,</b>	2 cm Muck (A1)	0) (LRR K, L, MLRA 149B)
_ Black Histic _ Hydrogen S _ Stratified La _ Depleted Be	edon (A2)	-	MLRA 149	B)		Coast Prairie R	edox (A16) (LRR K, L, R)
<ul> <li>Hydrogen S</li> <li>Stratified La</li> <li>Depleted Be</li> </ul>	c (A3)	-	Thin Dark Sur	face (S9) ( <b>LR</b>	R R, MLRA 149	<li>B) 5 cm Mucky Pe</li>	at or Peat (S3) (LRR K, L, R)
Stratified La Depleted Be	Sulfide (A4)	-	Loamy Mucky	Mineral (F1)	(LRR K, L)	Dark Surface (S	S7) ( <b>LRR K, L, M</b> )
_ Depleted Be	ayers (A5)	-	Loamy Gleyed	d Matrix (F2)		Polyvalue Below	w Surface (S8) (LRR K, L)
	elow Dark Surface	e (A11) _	Depleted Mate	rix (F3)		Thin Dark Surfa	ace (S9) ( <b>LRR K, L</b> )
_ Thick Dark	Surface (A12)	-	Redox Dark S	urface (F6)		Iron-Manganese	e Masses (F12) (L <b>RR K, L, R</b> )
Sandy Mucl	cky Mineral (S1)	-	Depleted Dark	(Surface (F7)		Piedmont Floor	plain Soils (F19) ( <b>MLRA 149</b>
Sandy Gley	yed Matrix (S4)	-	Redox Depres	ssions (F8)		Mesic Spodic (1	TA6) ( <b>MLRA 144A, 145, 149B</b>
Sandy Red	lox (S5)					Red Parent Mat	terial (F21)
Stripped Ma	atrix (S6)					Very Shallow D	Park Surface (TF12)
_ Dark Surfac	ce (S7) (LRR R, M	LRA 149B)	)			Other (Explain i	in Remarks)
dicators of hy	ydrophytic vegetati	on and wet	tland hydrology mi	ust be present	t, unless disturbe	d or problematic.	
Type:	Vare						90 N
Depth (inche	es):(_)					Hydric Soil Present	? Yes No
emarks:				76			· · · · · · · · · · · · · · · · · · ·
3							

WETLAND DETERMINATION DA	ATA FORM – Northcentral and Northeast Region
Project/Site:	City/County: Sampling Date: 15(14
Applicant/Owner:	State: A Sampling Point: A Sampling Point:
Investigator(s):	Section, Township, Range:
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA):	782.65 Long: -80, 388.07 Datum: NAO 83
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No (If no, explain in Remarks.)
Are Vegetation , Soit , or Hydrology significa	intly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	is the Sampled Area
Hydric Soil Present? Yes Yes No	within a Wetland? Yes <u>No</u> No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID: UDA-VAS-034
Remarks: (Explain alternative procedures here or in a separate n	eport.)
PEM	
extends begat	barder Atots SPA-KtSOLD
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	oly) Surface Soil Cracks (B6)
Surface Water (A1)	ned Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fau	una (B13) Moss Trim Lines (B16)
Arr Depos	bits (B15) Dry-Season Water Table (C2)
Water Marks (B1)     Hydrogen S	Sullide Odor (C1) Craylish Burrows (Co)
Drift Deposite (B3)	f Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Beduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck	Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Expl	lain in Remarks) $\overline{2}$ Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inc	hes):
Water Table Present? Yes No Depth (inc	hes):
Saturation Present? Yes No Depth (inc	hes): Vestand Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
non	
Remarks:	1
NON	

1

WA-645-021	D
Sampling Point:	

211	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species
1NO1/2		·	That Are OBL, FACW, or FAC: (A)
2,			Total Number of Dominant
3			Species Across All Strata: (B)
4	•		Percent of Dominant Species 67
5			That Are OBL, FACW, or FAC: (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:			FACW species x 2 =
1. Zosa multiflara	10	- WHCH	FAC species x 3 =
2.	6) 979		FACU species x 4 =
3			UPL species $x = x = x$
4			
5	-		Prevalence Index = B/A =
6	-		Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
	11	- Total Cover	2 - Dominance Test is >50%
5			3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:)	40	V OPI	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
I HAN NOTIONS CORVERS	10	Y FAVID	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Majan langer line			
3 <u></u>	- (		¹ Indicators of hydric soil and wetland hydrology must
4	• .		
5	-	·	Definitions of Vegetation Strata:
6		·	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	-		at breast neight (DBH), regardless of neight.
8			<b>Sapling/shrub</b> – Woody plants less than 3 in. DBH
9,			
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11	-	·	
12			height.
7.1	-20	= Total Cover	_
Woody Vine Stratum (Plot size:)			
1. None			
2			
3			Hydrophytic
4			Present? Yes No
	$\overline{O}$	= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

Sampling Point: _____

epui _	NUMERIA STREET		Redo	x Features	with a		
<u>nches)</u>	Color (moist)	%	Color (moist)	<u>% Type¹ Loc²</u>	Texture '	Remarks	
-12	101R21	$(\alpha)$		Sandy	loavn_		
	•			$\sim$	)		
		·					
							_
			*				
					·		_
				· · · · · · · · · · · · · · · · · · ·			
			****				
				· · · · · · · · · · · · · · · · · · ·			
							_
pe: C=Con	centration, D=Dep	letion, RM	Reduced Matrix, M	S=Masked Sand Grains.	² Location: PL=	Pore Lining, M=Matrix.	_
dric Soil Ind	dicators:				Indicators for P	oblematic Hydric Soils":	3)
Histosol (A	λ1) Sedon (Δ2)		Polyvalue Belov	w Surface (S8) (LRR R,	Coast Prairie	Redox (A16) (LRR K. L. R)	) 
Black Histi	ic (A3)		Thin Dark Surfa	, ace (S9) (L <b>RR R, MLRA 149B</b> )	) 5 cm Mucky	Peat or Peat (S3) (LRR K, L	., R)
Hydrogen	Sulfide (A4)		Loamy Mucky M	Mineral (F1) (LRR K, L)	Dark Surface	e (S7) (LRR K, L)	,
Stratified L	_ayers (A5) Polow Dark Surface	o (A11)	V Depleted Matrix	Matrix (F2)	Thin Dark Su	urface (S9) (LRR K. L)	.)
Thick Dark	k Surface (A12)		Redox Dark Su	rface (F6)	Iron-Mangan	ese Masses (F12) (LRR K, I	L, R
Sandy Mu	cky Mineral (S1)		Depleted Dark	Surface (F7)	Piedmont Flo	odplain Soils (F19) (MLRA	149
							1400
Sandy Gle	eyed Matrix (S4)		Redox Depress		Mesic Spool Red Parent I	c (TA6) (MLKA 144A, 145, 1 Material (F21)	149E
Sandy Gle Sandy Red Stripped M	eyed Matrix (S4) dox (S5) /atrix (S6)		Redox Depress	ווטווא (רס)	Nesic Spool Red Parent I Very Shallov	c (1A6) ( <b>MLKA 144A, 145, 1</b> Material (F21) v Dark Surface (TF12)	49E
Sandy Gle Sandy Rec Stripped N Dark Surfa	eyed Matrix (S4) dox (S5) /latrix (S6) ace (S7) (L <b>RR R, N</b>	ILRA 149E	Redox Depress	וטווא (רס)	Red Parent I Very Shallov Other (Expla	c (TA6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	1498
Sandy Gle Sandy Rec Stripped N Dark Surfa	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (L <b>RR R, N</b>	ALRA 149E	Redox Depress 3)	st he present unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (TAB) (MLKA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	149E
Sandy Gle Sandy Rec Stripped N Dark Surfa dicators of h	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetat	ILRA 149E	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (TAB) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	149E
Sandy Gle Sandy Rec Stripped M Dark Surfa dicators of h strictive La Type:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, N nydrophytic vegetal nyer (If observed):	ILRA 1498 tion and we	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (TAB) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	149E
Sandy Gle Sandy Reu Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch-	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal nyer (If observed): mes):	ILRA 149E	Redox Depress 3) etland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	1498
Sandy Gle Sandy Red Stripped M Dark Surfa dicators of h strictive La Type: Depth (incher marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, N hydrophytic vegetal hyer (If observed): es):	ILRA 149E	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Ren Stripped M Dark Surfa dicators of h strictive La Type: Depth (inchumarks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetat ayer (if observed): mes):	ILRA 149E	Redox Depress 3) etland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla I or problematic. Hydric Soil Prese	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Ren Stripped M Dark Surfa licators of h atrictive La Type: Depth (inchomarks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, N hydrophytic vegetal hyer (if observed): es):	ILRA 149E	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Rec Stripped M Dark Surfa licators of h strictive La Type: Depth (inche marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal eyer (If observed): wes):	ILRA 149E	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	
Sandy Gle Sandy Ren Stripped M Dark Surfa licators of h atrictive La Type: Depth (inchomarks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal nyer (If observed): es):	MLRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla	c (1746) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Ren Stripped M Dark Surfa dicators of h strictive La Type: Depth (inche marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal nyer (If observed): nes):	ILRA 149E	Redox Depress 3) stland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic.	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	
Sandy Gle Sandy Rec Stripped M Dark Surfa dicators of h strictive La Type: Depth (inchumarks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, N nydrophytic vegetal nyer (if observed): es):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic. Hydric Soil Prese	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	149E
Sandy Gle Sandy Ren Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch- marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, N hydrophytic vegetal hyer (if observed): hes):	ALRA 149E	Redox Depress 3) tland hydrology mus	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic. Hydric Soil Prese	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	149E
Sandy Gle Sandy Rec Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch marks:	ayed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M hydrophytic vegetat ayer (if observed): hes):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic. Hydric Soil Prese	c (1746) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Ren Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch- marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M hydrophytic vegetal hyer (if observed): es):	ALRA 149E	Redox Depress	at be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla t or problematic.	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Ren Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch- marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal eyer (If observed): mes):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla I or problematic. Hydric Soil Prese	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	
Sandy Gle Sandy Rec Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal eyer (if observed): mes):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic. Hydric Soil Prese	c (1/A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Rea Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch- marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal nyer (if observed): nes):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla f or problematic	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks) ent? Yes <u>No</u> No	
Sandy Gle Sandy Rec Stripped M Dark Surfa dicators of h strictive La Type: Depth (inch/ marks:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetal eyer (If observed): es):	ALRA 149E	Redox Depress	st be present, unless disturbed	Mesic Spoor Red Parent I Very Shallov Other (Expla d or problematic. Hydric Soil Prese	c (1A6) (MLRA 144A, 145, 1 Material (F21) v Dark Surface (TF12) in in Remarks)	

.

WETLAND DETERMINATION D	ATA FORM – Northcentral and Northeast Region
Project/Site:	City/County: City/County: Sampling Date: 11/5/14
Applicant/Owner: LEC	State: A Sampling Point: DO34
Investigator(s): VAS, NO	Section, Township, Range:
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none):
Subregion (LRR or MLRA):	<u>18 233</u> Long: <u>- 80 388 08</u> Datum: <u>MAR</u>
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soli, or Hydrology naturally	y problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ring sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate r	report.)
VPL- KAS-0321	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	ply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stai	ned Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fa	una (B13) Moss Trim Lines (B16)
Saturation (A3) Mari Depos	sits (B15) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen 3	Sulfide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized R	Rhizospheres on Living Roots (C3)
Drift Deposits (B3)	of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron	n Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck	Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Exp	Dain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	
Field Observations:	
Surface Water Present? Yes No C Depth (ind	nhon):
Saturation Present? Yes No Z Depth (int	ches): Wetland Hydrology Present? Yes No
(includes capillary fringe)	nhotos previous inspections), if available:
(Ma) A	
Remarks:	
1 A	
Vone	

1

-

VEGETATION – Use scientific names of plants.			Samp	UP-USDZ
0-1	Absolute	Dominant Indicator	Dominance Test worksheet:	<u>e</u>
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Dominant Species	$\bigcirc$
1. <u>CHONERANON EULPHERA</u>	18	11 T(4010	That Are OBL, FACW, or FAC	: (A)
2. <u>RIEVOSIUDAIM</u>	10	y TURCIA	Total Number of Dominant	R
3. Lagus Guardantalin	-2-	IV HACC	Species Across All Strata:	
4. aparts alle	$\underline{()}$	N HAU	Percent of Dominant Species	()
5. PUNTE Sciuting	30	Y HACI	That Are OBL, FACW, or FAC	: (A/B)
6	~~~		Brovalance Index worksheet	h.
7			Total % Cover of	Multiply by:
<i></i>			OBL species	x1=
	_0		EACW species	x2=
Sapling/Shrub Stratum (Plot size:)	15		FAC species	x3=
1. Cratalgos SP	<u></u>		FACU species	x4=
2. RUDS occaentais	15-	y yr	UPL species	x 5 =
3. ROST MULTITIONA	10	Y ACU	Column Totals:	(A) (B)
4				
5.			Prevalence Index = B/A	
6			Hydrophytic Vegetation Ind	icators:
7			1 - Rapid Test for Hydrop	hytic Vegetation
	40	- Total Cover	2 - Dominance Test is >5	0%
E1			3 - Prevalence Index is ≤	3.0 ¹
Herb Stratum (Plot size: <u>V</u> )	10	N FAU	4 - Morphological Adapta	tions ¹ (Provide supporting a separate sheet)
Davrus canto	21	4 12	Problematic Hydrophytic	Vegetation ¹ (Explain)
	75	I WA		
3. <u>VVICCE VIIVID</u>			¹ Indicators of hydric soil and when be present, unless disturbed	vetland hydrology must or problematic.
5			Definitions of Vegetation St	trata:
6.			Tree Weedy plants 2 in /7	6 cm) or more in diameter
7			at breast height (DBH), regard	dless of height.
8	·		Sapling/shrub – Woody plan and greater than or equal to 3	nts less than 3 in. DBH 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-v	woody) plants, regardless s than 3.28 ft tall.
11 <u>.                                   </u>				
12			Woody vines – All Woody Vir	nes greater than 3.26 it in
	50	= Total Cover		
Woody Vine Stratum (Plot size:)				
1. None				
2				~
3			Hydrophytic	
	- /		Vegetation	. X
4	0	= Total Cover	Present? Yes	No
Remarks: (include photo numbers here or on a separate	sheet.)		L	
			0	

rofile Description: (Describe to the (	lepth needed to docum	ent the indicator or confirm	the absence of indicato	ors.)
Ponte Description. (Describe to the c	Redox	Features		
(inches) Color (moist) %	Color (moist)		Texture	Remarks
-11 (0183/1 10	$\supset$		laans	
·	-			
	-		10.	
· · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·				
······································	-			
·		· · · · · · _ · _		
	_			
Type: C=Concentration, D=Depletion, F	RM=Reduced Matrix, MS	S=Masked Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.
lydric Soil Indicators:			Indicators for Proble	ematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	v Surface (S8) (LRR R,	2 cm Muck (A10)	(LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)		Coast Prairie Rec	dox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa	Ce (S9) (LRR R, MLRA 149B)	5 cm Mucky Pear Dark Surface (S7	( of Peat (53) (LKK N, L, N)
Hydrogen Sulfide (A4)	Loamy Mucky M	Aineral (F1) (LKK K, L) Matrix (E2)	Polyvalue Below	Surface (S8) (LRR K. L)
Stratified Layers (A5) Depleted Bolow Dark Surface (A11)	Depleted Matrix	(F3)	Thin Dark Surfac	e (S9) (L <b>RR K,</b> L)
Thick Dark Surface (A12)	Redox Dark Sur	rface (F6)	Iron-Manganese	Masses (F12) (LRR K, L, R
Sandy Mucky Mineral (S1)	Depleted Dark S	Surface (F7)	Piedmont Floodp	lain Soils (F19) (MLRA 149
		iono (EQ)	Marsia Oradia (T/	AGY/MI RA 144A - 145- 149F
Sandy Gleyed Matrix (S4)	Redox Depress			
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Redox Depress		Red Parent Mate	nial (F21)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Redox Depress	10115 (FO)	Mesic Spool (17 Red Parent Mate Very Shallow Da	rial (F21) rk Surface (TF12) Remarks)
<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Dark Surface (S7) (LRR R, MLRA 1</li> </ul>	Redox Depressi	1015 (FO)	Mesic Spoole (17 Red Parent Mate Very Shallow Da Other (Explain in	rial (F21) rk Surface (TF12) Remarks)
<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Dark Surface (S7) (LRR R, MLRA 1</li> </ul>	Redox Depressi 49B)	st be present, unless disturbed	Mesic Spoole (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rial (F21) rk Surface (TF12) Remarks)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed):	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rk Surface (TF12) Remarks)
<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Dark Surface (S7) (LRR R, MLRA 1</li> <li>Indicators of hydrophytic vegetation and Restrictive Layer (if observed):</li> </ul>	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rial (F21) rk Surface (TF12) Remarks)
<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Dark Surface (S7) (LRR R, MLRA 1</li> <li>ndicators of hydrophytic vegetation and</li> <li>testrictive Layer (if observed):</li> <li>Type:</li> </ul>	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spool: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rial (F21) rk Surface (TF12) Remarks)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches):	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rial (F21) rk Surface (TF12) Remarks)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) d wetland hydrology mus	tons (Po)	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	rial (F21) rk Surface (TF12) Remarks)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and sestrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic.	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1  Indicators of hydrophytic vegetation and Estrictive Layer (if observed): Type: Depth (inches): Emarks:	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spoole (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches):	Redox Depressi 49B) d wetland hydrology mus	st be present, unless disturbed	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 ndicators of hydrophytic vegetation and estrictive Layer (if observed): Type: Depth (inches): emarks:	Redox Depressi 49B) d wetland hydrology mus	tons (Po)	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soll Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): Remarks:	Redox Depressi 49B) d wetland hydrology mus	t be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): Temarks:	Redox Depressi 49B) d wetland hydrology mus	at be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Dark Surface (S7) (LRR R, MLRA 1</li> <li>Indicators of hydrophytic vegetation and estrictive Layer (if observed):</li> <li>Type:</li> <li>Depth (inches):</li> <li>temarks:</li> </ul>	Redox Depressi 49B) d wetland hydrology mus	t be present, unless disturbed	Mesic Spoilc (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 ndicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) 4 wetland hydrology mus	t be present, unless disturbed	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 ndicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) d wetland hydrology mus	t be present, unless disturbed	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 ndicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) d wetland hydrology mus	tons (Po)	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): Temarks:	Redox Depressi 49B) 4 wetland hydrology mus	t be present, unless disturbed	Mesic Spool (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) d wetland hydrology mus	tons (Po)	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 Indicators of hydrophytic vegetation and testrictive Layer (if observed): Type: Depth (inches): Remarks:	Redox Depressi 49B) 4 wetland hydrology mus	tons (Po)	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 ndicators of hydrophytic vegetation and estrictive Layer (if observed): Type: Depth (inches): temarks:	Redox Depressi 49B) 4 wetland hydrology mus	tons (Po)	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. Hydric Soil Present?	Yes No
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 1 indicators of hydrophytic vegetation and estrictive Layer (if observed):  Type: Depth (inches): emarks:	Redox Depressi 49B) d wetland hydrology mus	to is (Po)	Mesic Spoil: (17 Red Parent Mate Very Shallow Da Other (Explain in or problematic. 	Yes No

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

	Sunty & M. Sampling Date: W5/14
	State: PIA Sampling Point: SN PAT 144C/08/5
Applicant/Owner:	T with Brees VOM 0 1 /0 PA
Investigator(s): Section	Share (%):
Landform (hillslope, terrace, etc.): Local reli	ief (concave, convex, none): <u>NUVV</u> SSIDE (%): Side (%):
Subregion (LRR or MLRA):	Long: Datum: ///
Soil Map Unit Name:	NWI classification: <u>TCM</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Y	'es X No (If no, explain in Remarks.)
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ significantly distur	bed? Are "Normal Circumstances" present? Yes Z No
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects, important features, etc.
Hydrophytic Vocetation Present? Ves V	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
NDA-KAS-D35	
D.C. A.A.	
AC IN	
Houts SPA-1145-021	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
Leave Water (A1)	(B9) Trainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Mari Deposits (B15)	Les (C1) Cravitish Burrows (C8)
Water Marks (B1)	for (C1) Crayisi Burlows (C0)
Sediment Deposits (B2) Oxidized Rhizosphere	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	on in Tilled Soils (C6) Geomorphic Position (D2)
Iron Denosits (B5) Thin Muck Surface (	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rei	marks) A Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes Yes No Depth (inches):	(Faa
Water Table Present? Yes Y No Depth (inches):	WAND
Saturation Present? Yes <u>V</u> No <u>Depth</u> (inches): <u>Saturation</u> Present?	SUM Wetland Hydrology Present? Yes V No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
NONE	
Remarks:	
NONE	1
× *	

i

#### **VEGETATION** – Use scientific names

ree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test workshe Number of Dominant Speci That Are OBL, FACW, or FA	et: es AC: AC: (A)
	-		Total Number of Dominant Species Across All Strata:	(B)
			Percent of Dominant Specie That Are OBL, FACW, or F	
		· <u> </u>	Prevalence Index worksh	eet:
	$-\overline{\bigcirc}$		Total % Cover of:	Multiply by:
K'	$\Box$	= Total Cover	OBL species	x ? =
pling/Shrub Stratum (Plot size:)			FAC species	x3=
None			FACU species	
		· · ·	UPL species	x5=
		·	Column Totals:	(A) (B
		·	Prevalence index = I	B/A =
			Hydrophytic Vegetation I	ndicators:
			4 Deniel Test for Wird	conduction Vocatation

6	= Total Cover	Prevalence Index worksheet:
6 7 <u>Herb Stratum</u> (Plot size: <u>5</u> ) 1. <u>Physical Strats</u> ) 2. <u>Glyana Strats</u> 3	Total Cover	Hydrophytic Vegetation Indicators:         1 - Rapid Test for Hydrophytic Vegetation         2 - Dominance Test is >50%         3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4.		<ul> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vines – All woody vines greater than 3.28 ft in height.</li> </ul>
Woody Vine Stratum (Plot size: 30,)         1.         2.         3.         4.         Remarks: (Include photo numbers here or on a separate	= Total Cover	Hydrophytic Vegetation Present? Yes No

Profile Description: (Describe to the de	pth needed to document the indicator or confir	n the absence o	of indicators.)
Depth <u>Matrix</u> (inches) Color (moist) %	Redox Features           Color (moist)         %         Type ¹ Loc ²	Texture	Remarks
2-11 Calquil 2 Stray ID	J.	storm	
17 July 101 4		A .	
· · · · · · · · · · · · · · · · · · ·			
		1 <del></del> c//	
		·	
······································			
			**
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, MS=Masked Sand Grains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators 1	for Problematic Hydric Soils':
Histosol (A1)	Polyvalue Below Surface (S8) (LRR R,	2 cm M	uck (A10) (LRR K, L, MLRA 149B) Prairie Beday (A16) (LRB K, L, B)
Histic Epipedon (A2)	MLRA 149B) Thin Dark Surface (S9) (I RR R MI RA 149B	3) 5 cm M	ucky Peat or Peat (S3) (LRR K, L, R)
	Loamy Mucky Mineral (F1) (LRR K, L)	Dark Su	urface (S7) (LRR K, L)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Polyvai	ue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Thin Da	ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Iron-Ma Piedmo	anganese Masses (F12) (LKK K, L, K)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (r 7) Redox Depressions (F8)	Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Pa	rrent Material (F21)
Stripped Matrix (S6)		Very SI	hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149	В)	Other (	Explain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology must be present, unless disturbe	d or problematic	
Restrictive Layer (if observed):			
Type:			
Depth (inches):		Hydric Soil	Present? Yes <u>X</u> No
Remarks:			1415
			1

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: EC	City/County Shi CO Sampling Date: VIC/14
Applicant/Owner: 1 G/	State: P/A Sampling Point: NL-035
Investigator(e): VAS KD	Section Township, Bange: NDNR IN PA
	social relief (conceve, convex, none):
	171 Long: -80, 387137 Datum: \ /A0/3
	NW/ classification: ( P) - V/t CO35
Soil Map Unit Name:	
Are climatic / hydrologic conditions on the site typical for this time of yo	
Are Vegetation $\underline{N}_{\underline{N}}$ , Soil $\underline{N}_{\underline{N}}$ , or Hydrology $\underline{N}_{\underline{N}}$ significantly	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation $\underline{V}$ , Soil $\underline{V}$ , or Hydrology $\underline{V}$ naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate repo	ort.)
UL-UAS -050	
	17
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of (wo required)
Primary Indicators (minimum of one is required; check all that apply)	Sullace Soli Clacks (B0)
Surface Water (A1) Water-Stained	Moss Trim Lines (B16)
High Water Table (A2) Aquatic Fauna Seturation (A2) Marl Deposits	(B15) Drv-Season Water Table (C2)
Water Marks (B1)	fide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2)	ospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of R	Leduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron R	eduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Sur	rface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain	n in Remarks) Microtopographic Relief (U4)
Sparsely Vegetated Concave Surface (B8)	
Field Observations:	s).
Water Table Present? Yes No Z Depth (inches	s):
Saturation Present? Yes No Depth (inches	s): Wetland Hydrology Present? Yes No
(includes capillary fringe)	tes provious inspections) if available:
Describe Recorded Data (stream gauge, monitoring weil, aenai pho	
NONE	
Remarks:	
none	

1

×

<b>VEGETATION</b> -	Use	scientific	names o	of plants.
---------------------	-----	------------	---------	------------

Sampling Point:

Tree Stratum       (Plot size: 30 1)         1.       YONE         2.	Absolute Dominant Indicator <u>% Cover</u> Species? Status 	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:         One of Dominant Species         Species Across All Strata:         Percent of Dominant Species         That Are OBL, FACW, or FAC:         Opercent of Dominant Species         That Are OBL, FACW, or FAC:         Opercent of Dominant Species         That Are OBL, FACW, or FAC:         Opercent Of Dominant Species         That Are OBL, FACW, or FAC:         Opercent Of Dominant Species         Total % Cover of:         Multiply by:         OBL species
Sapling/Shrub Stratum (Plot size:)         1		FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:
6 7 <u>Herb Stratum</u> (Plot size:) 1 2	= Total Cover	Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic Vegetation        2 - Dominance Test is >50%        3 - Prevalence Index is ≤3.01        4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)        Problematic Hydrophytic Vegetation1 (Explain)
2.		<ul> <li>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</li> <li>Definitions of Vegetation Strata:</li> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> </ul>
8 9 10 11 12		<ul> <li>Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vines – All woody vines greater than 3.28 ft in height.</li> </ul>
Woody Vine Stratum         (Plot size:          //         )           1.         NONC         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .		Hydrophytic Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)	7

CP-1/AK 035 Sampling Point:

SOIL		Sampling Point:
Profile Description: (Describe to the	depth needed to document the indicator or confirm	the absence of indicators.)
Death Matrix	Redox Features	new way and a first state of the second state of the state of the second state of the
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
05 101K 4 00	)	
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
	Polovalue Below Surface (S8) / RR R	2 cm Muck (A10) (LRR K. L. MLRA 149B)
		Coast Prairie Redox (A16) (LRR K. L. R)
	MLKA 1450) This Dark Surface (SO) (LDD D. NI DA 1408)	5 cm Mucky Peat or Peat (S3) (I RR K. L. R)
Black Histic (A3)	I nin Dark Sunace (S9) (LKK K, MLKA 149D)	Dark Surface (S7) (LRR K   )
Hydrogen Sulfide (A4)		Dark Surface (S7) (LINK IN L)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Polyvalue Below Suitace (So) (LKK K, L)
Depleted Below Dark Surface (A11	) Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LKK K, L, K)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (F21)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA	149B)	Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation an	d wetland hydrology must be present, unless disturbed	l or problematic.
Restrictive Laver (if observed):		
- Chicker		
Type: <u>Vava</u>		
Depth (inches):		Hydric Soil Present? Yes NO
Remarks:		
Temano.		
525		
850		

WETLAND DETERMIN	NATION DATA FOR	RM – Northcentral	and Northeast	Region
Project/Site:	City/C	ounty:		Sampling Date:
Applicant/Owner: 15 C (TTC)			State: 24	_ Sampling Point: UPAVASO3
Investigator(s): VAS VAD	Sectio	n, Township, Range:	nono in	PIA
Landform (hillslope terrace etc.):	Local reli	ef (concave, convex, no	ne): NONE I	NPA Slope (%): D
Subracian (I BB at MI BA): V	+ 41 9104310	Long - 8	D. 38818	Datum: NAD82
	<u>11, 11, 110 - 9</u>	Long	NW/L classifica	tion PFO
		an S.L. No		marke )
Are climatic / hydrologic conditions on the site typical	for this time of year?			anarta Van V
Are Vegetation $\underline{-}, \overline{-}, \overline$		oed? Are Norma	a Circumstances pr	
Are Vegetation, Soil, or Hydrology	naturally problema	itic? (If needed,	explain any answers	s in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sam	pling point location	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No	Is the Sampled Area within a Wetland?	Yes	_ No
Wetland Hydrology Present? Yes	No	If ves, optional Wetlan	d Site ID: WPA	-VASO36
Remarks: (Explain alternative procedures here or in	n a separate report.)			
WPH-145036				
7FO				
Abuts SPA-145-025				
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)		Surface Soil C	Cracks (B6)
Surface Water (A1)	Water-Stained Leave	s (B9)	→ Drainage Patt	erns (B10)
High Water Table (A2)	_ Aquatic Fauna (B13)		🖄 Moss Trim Lir	nes (B16)
Saturation (A3)	_ Marl Deposits (B15)		Dry-Season V	Vater Table (C2)
Water Marks (B1)	_ Hydrogen Sulfide Od	or (C1)	- Crayrish Burro	bws (C8)
Sediment Deposits (B2)	_ Oxidized Rhizosphere	es on Living Roots (C3)	Saturation Vis	ressed Plants (D1)
Algol Mat or Cruet (B4)	Presence of Reduced	n in Tilled Soils (C6)	Geomorphic	Position (D2)
Iron Denosits (B5)	Thin Muck Surface (C	27)	Shallow Aquit	ard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Ren	narks)	Microtopogra	phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	_ 、		FAC-Neutral	Test (D5)
Field Observations:		0		
Surface Water Present? Yes No	_ Depth (inches): <u>S(</u>	Hale.		
Water Table Present? Yes No	_ Depth (inches): S	Ntall		
Saturation Present? Yes No No	_ Depth (inches): ⊴	VHILL Wetland	Hydrology Present	? Yes No
Describe Recorded Data (stream gauge, monitoring	y well, aerial photos, pre	vious inspections), if av	ailable:	
none				
Remarks:				
rone	~ 1			

18

Point:

1

Tree Stratum (Plot size: <u>3D'</u> ) 1. <u>Aren nobham</u>	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u> FAC	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:
2				Total Number of Dominant Species Across All Strata:
4		•		Percent of Dominant Species That Are OBL, FACW, or FAC: (07) (A/B)
6				Prevalence Index worksheet:
7	07	= Total Cov	er	<u>Total % Cover of:</u> <u>Multiply by:</u> OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)	01	S. I.		FACW species x 2 =
1 Lingustium japonicim	20	<u> </u>	UPC	FAC species X3 = FACU species X4 =
23				UPL species x 5 = (A)
4				
5	• •			Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				$X_2$ - Dominance Test is >50%
		= Total Cov	er	$3 - Prevalence Index is \leq 3.0^{1}$
Herb Stratum (Plot size: )	D	Ч	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3 4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		· <u></u> ·		Definitions of Vegetation Strata:
6 7	-0	·		<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		·		<b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10,	-			<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12	10	= Total Cov		Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30)		10101 001	0.	
1NONQ	-			
2		· ·		
3				Hydrophytic
4	$\overline{\mathbf{O}}$		<u> </u>	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)	= Total Cov	er	

WPAKAS 036

SOIL				Sampling Point:	-
Profile Desc	ription: (Describe	to the dep	th needed to document the indicator or confirm	the absence of indicators.)	
Depth	Matrix	- · · ·	Redox Features		
(inches)	Color (moist)	%	Color (moist)%Type1Loc2	Texture Remarks	
h o	· INTE 24	100		the internetter - 1	
<u> </u>	1010 0			There is a second secon	•
3-11)	INRY,	(0)		Sandy Dam	-
					-
	•				- I
					-
					-
			······································		• ]
				· · · · · · · · · · · · · · · · · · ·	<u> </u>
	÷				×.
					-
-					
				2	-
¹ Type: C=Co	oncentration, D=Dep	oletion, RM	Reduced Matrix, MS=Masked Sand Grains.	"Location: PL=Pore Lining, M=Matrix.	_
Hydric Soil I	Indicators:			Indicators for Problematic Hydric Solis":	
Histosol	(A1)		Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	oipedon (A2)		MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
🖳 🔜 Black Hi	stic (A3)		Thin Dark Surface (S9) (LRR R, MLRA 149B)	$\underline{X}_{5}$ cm Mucky Peat or Peat (S3) (LRR K, L, R)	
U Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L)	
Stratified	d Layers (A5)		Loamy Gleyed Matrix (F2)	Polyvalue Below Surface (S8) (LRR K, L)	
Depleted	d Below Dark Surfac	ce (A11)	Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR K, L)	
Thick Da	ark Surface (A12)		Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)	I.
Sandy M	lucky Mineral (S1)		Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 1498)	3)
Sandy G	Bleyed Matrix (S4)		Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	)
Sandy R	Redox (S5)			Red Parent Material (F21)	
Stripped	Matrix (S6)			Very Shallow Dark Surface (TF12)	
Dark Su	rface (S7) (LRR R,	MLRA 1491	3)	Other (Explain in Remarks)	
			*		
³ Indicators of	f hydrophytic vegeta	ation and we	etland hydrology must be present, unless disturbed	or problematic.	
<b>Restrictive</b>	Layer (if observed)	):			
Type	hone			1.7	
, , , , , , , , , , , , , , , , , , ,				Hydric Soil Present? Yes No	
Depth (ind	ches):				-
Remarks:	rela		1 10 2		
1.0	W STAN	1 1000	it to V		
ALO	ALD CH	VVO			
0.	$F \sim$				
		2		li l	
1					
1					

WETLAND DETERMINATION D	ATA FORM – Northcentral and Northeast Region
Project/Site: 15 C	City/County: Ceng, Sampling Date: 116114
Applicant/Owner: 56	State State Sampling Point: UPL-31
Investigator(s): UAC V()	Section, Township, Range: NOAO 100
Landform (hillslone terrace etc.):	Local relief (concave, convex, none); VOV Slope (%);
Subregion (LRR or MLRA): Lat:	6479Z Long: -8033807   Datum: MAP 83
Soil Map Unit Name:	NWI classification: UP/
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes 📝 No (If no, explain in Remarks.)
Are Vegetation N, Soil , N, or Hydrology N significa	antly disturbed? Are "Normal Circumstances" present? Yes 🔀 No
Are Vegetation, Soil, or Hydrology naturall	y problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes No       Hydric Soil Present?     Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
UPL-1Ats-036	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	ply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stai	ined Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fa	Auna (B13) Moss Trim Lines (B16)
Saturation (A3) Marl Depo	sits (B15) Dry-Season Water Table (C2)
Water Marks (B1)	Sulfide Odor (C1) Crayfish Burrows (C6)
Sediment Deposits (B2) Oxidized R	of Podulod Iron (C1) Stundard or Stressed Plants (D1)
Drift Deposits (B3)     Presence (     Page Matter Crupt (P4)     Presence (     Page Matter Crupt (P4)	n Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iren Deposits (B5)	Surface (C7) Shallow Aquitard (D3)
Init Deposits (B3) Init Mace	blain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inc	ches):
Water Table Present? Yes No Depth (ind	ches):
Saturation Present? Yes <u>No</u> Depth (inc (includes capillary fringe)	ches): Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:
nong	
Remarks:	
NO	NE

A5-53 Sampling Point:

VEGETATION Oue coloritatio flamoe of planter				
201	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species /	<u>Status</u>	Number of Dominant Species
1. Soga anadimss	S	<u> </u>	FILLA	_That Are OBL, FACW, or FAC: (A)
2. LINGENOLON thidite	RUD	N,	Facu	Total Number of Dominant
2 EDGUS aprimition	21	N	FACIL	Species Across All Strata:
S. 1000	-6-	N /	CACIL	
4. CYRVERS MYXX			TANI	Percent of Dominant Species
5. JAMUS SCHOTTAR		_///	THUL	
6.				Provalence Index worksheet:
7				Total % Cover of Multiply by:
	80		**	
1 (	02		/er	
Sapling/Shrub_Stratum (Plot size:)	1.5		21	FACVV species X2 =
1. LINGISTROM OLDONKUM	10	<u> </u>	OPL	FAC species x 3 =
2 Indens printing	10	Y	FAC .	FACU species x 4 =
Dec minitifier	10	V	FACIL	UPL species x 5 =
3. ICACK THEAT HUR	10		INCLA	Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
U				1 - Rapid Test for Hydrophytic Vegetation
7	7~			2 - Dominance Test is >50%
~ /	30	= Total Cov	ver	2 - Browalance Index is < 2.01
Herb Stratum (Plot size:				5 - Prevalence index is \$5.0
Dripilane Celtemper	18	4	FAC	4 - Morphological Adaptations (Provide Supporting
	<u>`</u>			Broblomatic Hydrophytic Vegetation ¹ (Evolain)
2				
3				¹ Indiantom of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
-			1	
5			-	Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7		_		at breast height (DBH), regardless of height.
8				Sepling/abruh Woody plants loss than 3 in DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9	0			
10				Herb – All herbaceous (non-woody) plants, regardless
11				or size, and woody plants less than 5.20 h tall.
12				Woody vines - All woody vines greater than 3.28 ft in
	TR	- Total Ca	vor	height.
112		- 10141 00	461	
Woody Vine Stratum (Plot size:)				
1. NOVY	·			
2				
2				Hudrophytic
				Vegetation
4	2		· · · · ·	Present? Yes No
	$\underline{\bigcirc}$	= Total Co	ver	/
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point

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

Depth	Matrix		Redox Feature	7 1	1 2	Territory	Demedia
(inches)	Color (moist)	%	Color (moist) %	Type'	Loc		Remarks
9-10	104K22	100				lacom	
		÷ —— ·	·	-		( <del></del> ))	
						( <u> </u>	
		÷					
				_	·		
						·	
				/	(		
;							
Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, MS=Maske	d Sand Gra	ains.	² Location	PL=Pore Lining, M=Matrix.
ydric Soil I	ndicators:					Indicators	for Problematic Hydric Soils*:
Histosol	(A1)		Polyvalue Below Surface	e (S8) (L <b>R</b> F	R,	2 cm N	luck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		MLRA 149B)			Coast	Prairie Redox (A16) (LRR K, L, R)
_ Black His	stic (A3)		Thin Dark Surface (S9)	LRR R, MI	RA 149B	)5 cm M	lucky Peat or Peat (S3) (LRR K, L, R)
_ Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F	⁻ 1) ( <b>LRR K</b>	, L)	Dark S	urface (S7) (LRR K, L)
Stratified	Layers (A5)		Loamy Gleyed Matrix (F	2)		Polyva	lue Below Surface (S8) (L <b>RR K, L)</b>
Depleted	Below Dark Surfa	ce (A11)	Depleted Matrix (F3)			Thin D	ark Surface (S9) (LRR K, L)
Thick Da	rk Surface (A12)		Redox Dark Surface (F6	)		Iron-Ma	anganese Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Depleted Dark Surface (	F7)		Piedmo	ont Floodplain Soils (F19) (MLRA 1498
Sandy G	ileyed Matrix (S4)		Redox Depressions (F8)	)		Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)					Red Pa	arent Material (F21)
Stripped	Matrix (S6)					Very S	hallow Dark Surface (TF12)
Dark Sur	rface (S7) (LRR R,	MLRA 149B	5)			Other (	(Explain in Remarks)
					11 - 1 - 1		
Indicators of	hydrophytic veget	ation and we	tland hydrology must be pres	sent, unless	s disturbed	or problematic	
Restrictive L	ayer (if observed	):				1	0
Туре:							
Depth (inc	ches):					Hydric Soil	Present? Yes No
emarks:							~ /
ornanko.							
			3 ¹				
			31				
			31				
			2	I			
			2	Į			
			2	ţ			
			2	ţ			
			5	l			
			2	ł			
			2	ł			
			5	ł			
			5	ł			

WETLAND DETERMINATION DATA FORM Northc	entral and Northeast Region
Project/Site: ( C C City/County:	Sampling Date 10/19
Applicant/Owner: IEA LITE HORUMO	State: 14 Sampling Point: WPA-037
Investigator(s): 1445 100 Section, Township, Ra	ange: NONE IN PA
Landform (hillslope, terrace, etc.): YVDN Q Local relief (concave, con	ivex, none): Slope (%):
Subregion (LRR or MLRA):	ng: -80.382474 Datum: NA083
Soil Map Unit Name: HKB	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _	(If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are	"Normal Circumstances" present? Yes 1 No
Are Vegetation, Soil, or Hydrology naturally problematic? (If not	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point I	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampleo	d Area
Hydric Soil Present? Yes No within a Wetla	
Wetland Hydrology Present? Yes No If yes, optional	Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
ADA ASO37 HUS	
150lated	
HYDROLOGY	
Wetland Hydrology Indicatore:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
Aguatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) A Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roo	ots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils	(C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): W	etland Hydrology Present? Yes — No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	is), if available:
none	
Remarks:	
None	
æ	
<i>S</i> .	
2	



Tree Stratum         (Plot size:)           1        )           2	Absolute <u>% Cover</u>	Dominant   Indicator     Species?   Status	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:         Total Number of Dominant
3 4			Species Across All Strata: (B) Percent of Dominant Species
5			That Are OBL, FACW, or FAC: (A/B)
7.	0	= Total Cover	Prevalence Index worksheet:
1		` 	FAC species
4			Prevalence Index = B/A =
6	0	= Total Cover	Hydrophytic Vegetation Indicators:        1 - Rapid Test for Hydrophytic Vegetation        2 - Dominance Test is >50%        3 - Prevalence Index is ≤3.01        4 - Morphological Adaptations1 (Provide supporting
1 2			Detail in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		() <del></del> () <del>(</del>	Definitions of Vegetation Strata:
6 7	-		<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
9	• •	,,,,	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12	0	= Total Cover	Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum         (Plot size:)           1			
3			Hydrophytic
4	$\mathcal{O}$	= Total Cover	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.) SMvQ	d due	to standing
Water			

.....

Sampling Point:

Profile Descr	iption: (Describe	to the depti	h needed to docun	nent the i	ndicator	or confirm	the absence of	indicator	s.)	
Depth	Matrix		Redo	x Features	3					
(inches)	Color (moist)		Color (moist)	%	<u>Type¹</u>	_Loc ²	Texture		Remarks	
DE	Leap (1+-	ter					mully			
ILD	091123/	m				C	endin	Dal	A	
-11-12	- W loc	<u>.</u>				*	anone -	UUU4	·)	
<u></u> (x)								_		
<u></u>						<del></del>				
		· · · · · · · · · · · · ·								
<u> </u>										
******				99 <del>9</del>						
				· · · · · · · · · · · · · · · · · · ·			21	DI - Dana li	Inten ManMater	
'Type: C=Co	ncentration, D=Dep	oletion, RM=I	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location: H	-L=Pore L	ining, M=Matri natic Hydric S	ix.
Hydric Soil II	ndicators:		Dalasaka Dala	. Outra	(00) /1 DE		2 om Mur			DA 1408)
Histosol (	A1) Inedex (A2)	-	Polyvalue Belov	w Sunace	(56) (LRF	κ κ,	2 cm wuo	airie Redo	(A16) (I RR	KIR)
Black His	tic (A3)		Thin Dark Surfa	) Ice (S9) (I	RR R. MI	RA 149B)	$\sim$ 5 cm Mu	ckv Peat o	r Peat (S3) (L	RR K. L. R)
	n Sulfide (A4)	-	Loamy Mucky N	/lineral (F1	) (LRR K	. L)	Dark Sur	face (S7)	(LRR K, L)	
T Stratified	Lavers (A5)	-	Loamy Gleyed I	Matrix (F2	)	. ,	Polyvalue	e Below S	urface (S8) (Ll	RR K, L)
Depleted	Below Dark Surfac	æ (A11)	Depleted Matrix	(F3)			Thin Darl	k Surface	(S9) (L <b>RR K</b> , I	∟)
Thick Dat	rk Surface (A12)	-	Redox Dark Su	rface (F6)			Iron-Man	ganese M	asses (F12) (L	.RR K, L, R)
Sandy M	ucky Mineral (S1)	-	Depleted Dark	Surface (F	7)		Piedmon	t Floodpla	in Soils (F19)	(MLRA 149B)
Sandy GI	eyed Matrix (S4)	-	Redox Depress	ions (F8)			Mesic Sp	odic (TA6	6) (MLRA 1444	<b>, 145, 149B</b> )
Sandy Re	edox (S5)						Red Pare	ent Materia	al (F21) Surface /T⊑41	2
Stripped	Matrix (S6)						Very Sna	ulow Dark	Surface (IF12	2)
Dark Sur	lace (S7) (LRR R, I	MLKA 149B	)					xpiain in r	emarks)	
³ Indicators of	hydrophytic yegeta	tion and wet	and hydrology mus	t be prese	ent. unless	s disturbed	or problematic.			
Restrictive L	aver (if observed)									
	and								$\sim$ /	
	<u>10-1</u>						Hydric Soil P	resent?	Yes	No
Depth (inc	hes):									
Remarks:										
1	AAA A									
	and the									
0										
		¥						1		
		J						4		

I
WETLAND DETERMINATION DATA F	ORM Northcentral and Northeast Region
Project/Site:	y/County: FND Sampling Date: 100119
Applicant/Owner: ITC HORLIMO	State: PIA Sampling Point: UP-037
Investigator(s): VAS. 1(O) Se	ction, Township, Range: Mong in PIA
Landform (hillslope, terrace, etc.): MDNQ	relief (concave, convex, none): NONQ Slope (%):
Subregion (I BR or MI RA): Lat: 41.9/gugu3	Long: - 80,388 519 Datum: NAD83
Soil Map Linit Name: HCB	NWI classification:
Are alimatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Versited N. Soil N. or Hydrology Are Versited to this time of years	sturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation <u>V</u> , Soil <u>V</u> , or Hydrology <u>v</u> , aighinicantly dis	amatic? (If needed, explain any answers in Remarks )
SUMMARY OF FINDINGS – Attach site map showing s	amplin <del>g point locat</del> ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes <u>No</u>
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
12 11/2 227	
UN-145-051	
UPL- 145-038	
	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	aves (B9) Drainage Patterns (B10)
High Water Table (A2)	13) Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1	5) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospl	heres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Redu	ced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Redu	ction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Bomarke) Microtonographic Relief (D4)
Sparsely Venetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches): _	
Water Table Present? Yes No Depth (inches): _	\/
Saturation Present? Yes No Yes Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
vone	
Remarks:	
10	
Vione	

## VEGETATION - Use scientific names of plants,



201	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species? Status	Number of Demicent Species
1 QUEVEDS NONM	10	Y FACU	That Are OBL FACW or FAC: (A)
al up relayed up to li pentor	110	Y FAU	
2 Current Conferment	115	4 FA (11	Total Number of Dominant
3. MOV Salaravinon	10	1 MACIN	Species Across All Strata:
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: (A/B)
<u> </u>	-0		
o	1		Prevalence Index worksheet:
7	2		Total % Cover of: Multiply by:
	30	= Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:			FACW species x 2 =
			FAC species x 3 =
1. <u>_100h@</u>			FACU species x 4 =
2			UPL species x 5 =
3			Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
0			Hydrophytic Vegetation Indicators
D	-		1 - Rapid Test for Hydrophytic Vegetation
7		· · · · · · · · · · · · · · · · · · ·	
	$\mathcal{O}$	= Total Cover	
Herb Stratum (Plot size:	1		
1.700, MOUS	NOU	YIR	<ul> <li>4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
2	s.,		Problematic Hydrophytic Vegetation ¹ (Explain)
3		¥	¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5		·	Definitions of Vegetation Strata:
6			Tree Meadurlante 2 is /7 6 am) as more in diameter
7.			at breast height (DBH), regardless of height.
8			
	- ( ) <del>-</del>		and greater than or equal to 3 28 ft (1 m) tail
9,	- ( <del>.</del>		
10			Herb - All herbaceous (non-woody) plants, regardless
11			of size, and woody plants less than 3.28 π tall.
12			Woody vines - All woody vines greater than 3.28 ft in
	- 10	- Tatal Causa	height.
20	_100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1. Vone			-
2			
			l II. desete d'a
3,			Vegetation
4	- 37		Present? Yes No
1 ²	$\mathcal{O}$	= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		



Brofile Description: (Describe to the de	oth needed to docur	nent the i	ndicator	or confirm	the absence of in	dicators.)
Depth Matrix	Redo	x Features		or comm		
(inches) Color (moist) %	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
D-12 1/1124/1, 107					lan	
C C Mp. C					1 <u></u>	
					· · · · · · · · · · · · · · · · · · ·	
					;	
	<del></del>					
· · · · · · · · · · · · · · · · · · ·					·	
· · · · · · · · · · · · · · · · · · ·	<u>+</u>	·			S <b></b> 1 R	
	-				·	
	Reduced Matrix M	S=Maekod	Sand Gr	ains	² Location: Pl =	=Pore Lining, M=Matrix
Hydric Soil Indicators:	-Reduced Watny, M	J-Waskeu	Gand Gi		Indicators for P	Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface	(S8) (L <b>R</b>	R.	2 cm Muck	(A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B	)	(/(		Coast Prairi	e Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa	ace (S9) (L	.RR R, M	LRA 149B	) 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Muck	Vineral (F1	) (LRR K	, L)	Dark Surfac	e (S7) (LRR K, L)
Stratified Layers (A5)	Loamy Gleyed	Matrix (F2)	)		Polyvalue B	elow Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)			Thin Dark S	Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su	nace (F6) Surfood (F	7)		Iron-Mangal	nese masses (F12) (LRR R, L, R) loodplain Soils (F19) (MI RA 1498)
Sandy Gleved Matrix (S4)	Depleted Dark	sons (FA)	<i>'</i> )		Mesic Spod	lic (TA6) (MLRA 144A, 145, 149B)
Sandy Bedox (S5)					Red Parent	Material (F21)
Stripped Matrix (S6)					Very Shallo	w Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149	B)				Other (Expl	ain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology mus	st be prese	ent, unles	s disturbed	l or problematic.	
Restrictive Layer (if observed):						
Type:						X
Depth (inches):					Hydric Soil Pres	sent? Yes <u>No</u>
Remarks:						
1			1			
<i></i>						
U						

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Er Chi	Sampling Date: W101K
Project/Site: City/County: City/County:	State A Sampling Point WA038
	Nan a Lin PH
Investigator(s): Section, Township, Range:	NOR A MARKED
Landform (hillslope, terrace, etc.):Local relief (concave, convex, no	Slope (%): 1
Subregion (LRR or MLRA): Lat: Lat: Long:	80,388910 Datum: 107700
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation V, Soil V, or Hydrology V significantly disturbed? Are "Norma	al Circumstances" present? Yes X No
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Ves - No Is the Sampled Area	0
Hydric Soil Present? Yes No within a Wetland?	Yes No
Wetland Hydrology Present? Yes No If yes, optional Wetlan	d Site ID:A-1245-038
Remarks: (Explain alternative procedures here or in a separate report.)	
PSS located outside SUM	reyana
WIA-V45038 but next to PEM	withind within ARNIN
Isolated nocicl dipression	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted of Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Solis (C6)	Shallow Aquitard (D3)
Iron Deposits (B5) Inin Muck Sufface (C7)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Other (Explain III Remarks)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes X No Depth (inches): D Surface Wetland	Hydrology Present? Yes X No
(includes capillary fringe)	vailable:
Non	
Remarks:	
	)
Vary	
	2

ï

VEGETATION – Use scientific names of plants.				PSSI Sampling Point:
201	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>2</u> ) 1. Beta nava		Species?	<u>Status</u>	Number of Dominant Species
2. Sall'x navas	<u>IU</u>	<u>Y_c</u>	DPL	Total Number of Dominant Species Across All Strata: (B)
4,				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5 6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
n 1	20	= Total Cov	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: )	-,		-	FACW species x 2 =
COMPLEX CONDIMIN	50	Y	HACH	)FAC species x 3 =
Tabas alledaalu aask	20	্ব'—	VIAI	FACU species x 4 =
2. KUIS anguarens	40		THE	UPL species x 5 =
3/				Column Totals: (A) (B)
5				Prevalence index = B/A =
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	TO	- T-tal Oa		2 - Dominance Test is >50%
	10	= I otal Co	ver	3 - Prevalence Index is ≤3.0 ¹
1. NDN 0				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3	• :			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6	• •			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		- /		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless
11	-			Woody vines – All woody vines greater than 3.28 ft in
12	$\overline{O}$	_ = Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
2		-		
3		-		Hydrophytic (/
4		= Total Co	ver	Present? Yes <u>K</u> No
Remarks: (Include photo numbers here or on a separate	sheet.)			
^				

SOIL

11 0A-1/45-738 PSS
MAT 1013 -Sampling Point:

Profile Des	cription: (Describe	to the dept	h needed to docu	ment the	indicato	r or confirm	the absence of i	ndicators.)	
Depth (inches)	Matrix		Color (moist)	ox Feature %	S Type ¹	Loc ²	Texture	Remarks	
H	10NP 46	10 -	754844	20	1	P	12040		
<u></u>		<u> </u>	101L.6						
	÷								
					-				
	-								
					c				
			1				·		
							. <u> </u>		
		· · ·							
	) <del>.</del>	•							
	-						·		
¹ Type: C=C	oncentration. D=Den	letion, RM=	Reduced Matrix. N	S=Maske	d Sand G	irains.	² Location: P	L=Pore Lining, M=Ma	trix.
Hydric Soil	Indicators:						Indicators for	Problematic Hydric	Solls ³ :
Histosol	(A1)	-	Polyvalue Belo	ow Surface	(S8) (LF	RR R,	2 cm Mucl	k (A10) (LRR K, L, MI	RA 149B)
Histic El	pipedon (A2)		MLRA 149E	3) 			Coast Prai	irie Redox (A16) (LRR	RK, L, R)
Black Hi	istic (A3) on Sulfide (A4)	-	Thin Dark Surt	ace (S9) (I Mineral (F	1) (I RR	ALRA 1496 K. I.)	) 5 cm Muci Dark Surfa	ace (S7) ( <b>LRR K. L</b> )	LKKK, L, K
Stratified	d Lavers (A5)	-	Loamy Gleyed	Matrix (F2	2)	(, <b>L</b> )	Polyvalue	Below Surface (S8) (I	LRR K, L)
Deplete	d Below Dark Surfac	e (A11)	Depleted Matri	ix (F3)			Thin Dark	Surface (S9) (LRR K	, L)
Thick Da	ark Surface (A12)	-	Redox Dark S	urface (F6)	)		Iron-Mang	anese Masses (F12) Floodoloin Spile (F10)	
Sandy N	Aucky Mineral (S1)	-	Depleted Dark	Surface (I	-7)		Pleamont Mesic Spo	dic (TA6) (MLRA 144	A. 145. 149B)
Sandy G	Redox (S5)	-	Redux Depies	3013 (1.0)			Red Parer	nt Material (F21)	,
Stripped	Matrix (S6)						Very Shall	low Dark Surface (TF	12)
Dark Su	rface (S7) (L <b>RR R</b> , <b>N</b>	ILRA 149B	)				Other (Exp	plain in Remarks)	
³ Indicators of	f hydrophytic ycaotai	tion and wet	land hydrology mu	ist he pres	ont unlo	ss disturber	t or problematic.		
Restrictive	Laver (if observed):		liand hydrology me						
Type:	mone							$\mathbf{V}$	
Depth (in	ches):						Hydric Soil Pre	esent?Yes 📈	No
Remarks:			_						
		0					1		
		55 E							

WETLAND DETERMINATION DATA FO	RM – Northcentral and Northeast Region
Project/Site: LET City/C	County: The CO Sampling Date: 4014
Applicant/Owner: ITC Holdling ((C	State: PA Sampling Point: UA-38
Investigator(e): VAC , V D Secti	on Township Range: ODO INPA
Landform (billalana tarrana ata):	lief (concerve, convex, none): NON O Slope (%):
	lier (concave, convex, none) Giope (18) Giope (18).
Subregion (LRR or MLRA): Lat: Lat:	Long: Datum: IM PG
Soil Map Unit Name:	
Are climatic / hydrologic conditions on the site typical for this time of year?	res No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology 7 significantly distu	rbed? Are "Normal Circumstances" present? Yes 1 No No
Are Vegetation, Soil, or Hydrology naturally problem	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing same	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	
WPA-145-038	
PEM	
Isolated	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	es (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)     Hydrogen Sulfide Oc     Outdined Departure (D2)	Ior (C1) Crayitsri Burrows (Co)
Sediment Deposits (B2) Oxidized Rnizospher	d Iron (C4) Stunted or Stressed Plants (D1)
Aloal Mat or Crust (B4) Recent Iron Reduction	an in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	marks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No 🔀 Depth (inches):	
Saturation Present? Yes <u>V</u> No <u>Depth</u> (inches): <u>T</u>	2 SUT (Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pro	evious inspections), if available:
vone	Ξ.
Remarks:	
vone	
12 J	

1

Tree Stratum       Plot size       201       Power of the size       201         1       ADM A       Scorest Stratum       Power of Dominant Species       201         2       Scorest Stratum       Provide of Dominant Species       201       (A)         3       Scorest Stratum       Provide of Dominant Species       (B)         4       Scorest Stratum       Provide of Dominant Species       (A)         5       Scorest Stratum       (Plot size)       (A)         7       Scorest Stratum       (Plot size)       (A)         1       ADM (Plot size)       (A)       (A)         2       Scorest Stratum       (Plot size)       (A)         3       Scorest Stratum       (Plot size)       (A)         4       Scorest Stratum       (Plot size)       (A)       (B)         5       Scorest Stratum       (Plot size)       (A)       (B)         6       Scorest Stratum       (Plot size)       (A)       (B)         7       Scorest Stratum       (Plot size)       (A)       (B)         6       Scorest Stratum       (Plot size)       (A)       (B)         7       Scorest Stratum       (Plot size)       (A)       (B) <th></th> <th>Abaaluta</th> <th>Dominant Indicator</th> <th></th>		Abaaluta	Dominant Indicator	
1.	Tree Stratum (Plot size: 30) )	Absolute % Cover	Species? Status	Dominance Test worksheet:
2	1. ADNe			That Are OBL, FACW, or FAC: (A)
3.       Species Across AI Strats:       (E)         4.       Percent of Dominant Species       (D)       (AE         5.       Prevalence Index worksheet:       (AE       (AE         5.       Percent of Dominant Species       (D)       (AE         5.       Percent of Dominant Species       (D)       (AE         5.       Percent of Dominant Species       (AE       (AE         5.       Percent of Dominant Species       (A 2 =	2			Total Number of Dominant 2
4.       Percent of Dominance Species       Worksheet:         5.       D       = Total Cover         7.       Capacida       X.4         1.       D       = Total Cover         2.       D       = Total Cover         3.       D       = Total Cover         4.       Morpholic Cogetation Indicators:       2.         1.       Aspace Main Remarks or on a separate sheet       2.         2.       D       = Total Cover         3.       D       Image: Common Construct State         4.       Main Main Mark Mark Mark Mark Mark Mark Mark Mark	3			Species Across All Strata: (B)
5. That Are OBL, FACW, or FAC: (AF   7. Total % Cover of: Multiply by:   7. Total % Cover of: Multiply by:   8. Total % Cover of: Multiply by:   9. AC species x 2 =   7. AC species x 4 =   9. Provalence index worksheet: Provalence index worksheet:   9. AC species x 2 =   9. AC species x 4 =   9. Provalence index = B/A =   9. Provalence index is \$30°   9. AC species x 5 =   9. Column Totals: (A)   9. AC species x 5 =   9. Column Totals: (A)   9. AC species x 6 =   9. AC species<	4			Percent of Dominant Species
Barrier Stratum (Plot size:	5			That Are OBL, FACW, or FAC:
7.	6			Prevalence Index worksheet:
SapinorShub Stratum       (Piot size:)         SapinorShub Stratum       (Piot size:	7		·	Total % Cover of: Multiply by:
Saping/Shub Stratum       (Plot size:		0	= Total Cover	OBL species x 1 =
PAC species x 3 =   PAC species x 4 =   Pac species <td>Sapling/Shrub Stratum (Plot size:</td> <td></td> <td></td> <td>FACW species x 2 =</td>	Sapling/Shrub Stratum (Plot size:			FACW species x 2 =
FACU species       x 4 =	None			FAC species x 3 =
Image:	2			FACU species x4 =
Image: Stratum       Column Totals:       (A)       (B)         Image: Stratum       (Plot size: 5)       (A)       Prevalence Index = B/A =				UPL species x 5 =
Prevalence Index = B/A =	1			Column Totals: (A) (B)
A				Prevalence Index = B/A =
1       Rapid Test for Hydrophytic Vegetation         2       2         1       A test Stratum (Plot size:)         1       A test Stratum (Plot size:)         1       A test Stratum (Plot size:)         2       Stratum (Plot size:)         3       A test Stratum (Plot size:)         4       A test Stratum (Plot size:)         5       A test Stratum (Plot size:)         6       A test Stratum (Plot size:)         7       A test Stratum (Plot size:)         8       A test Stratum (Plot size:)         9       A test Stratum (Plot size:)         10       A test Stratum (Plot size:)         11       A test Stratum (Plot size:)         12       A test Stratum (Plot size:)         13       A test Stratum (Plot size:)         14       A test Stratum (Plot size:)         15       A test Stratum (Plot size:)         16       A test Stratum (Plot size:)         17       A test Stratum (Plot size:)         18       A test Stratum (Plot size:)         19       A test Stratum (Plot size:)	3			Hydrophytic Vegetation Indicators:
2 - Dominance Test is >50%         3 - Prevalence Index is \$3.0°         2 - Morphological Adaptions? (Provide supporting the interval of	7	- 3		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size:       )	·	$\overline{\mathbf{O}}$	= Total Cover	2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 ¹
	At Km Si broydatam	10	NOR	4 - Morphological Adaptations ¹ (Provide supportindata in Remarks or on a separate sheet)
a.       And a solution of the solutio	Saldann samachuse	15	NI FACIL	Problematic Hydrophytic Vegetation ¹ (Explain)
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Indicators of hydric soil and wetland hydrology must be present.         Indicators of hydric soil and wetland hydrology must be present?         Indicators of hydric soil and wetland hydrology must be present.         Indicators of hydric soil and wetland hydrology must be present?         Indicators of hydric soil and wetland hydrology must be present.         Indicators of hydric soil and wetland hydrology must be present.         Indicators of hydrology must be present.         Indicators of hydrology mu	FERRITE AWALLE	- 10-	N FACU	
a	Pavau and southate	-25-	Y ORI	¹ Indicators of hydric soil and wetland hydrology must
Definitions of Vegetation Strata:         3.	Photons any Municip	- 25	V FAYW	be present, unless disturbed or problematic.
7	I Martins environma			Definitions of Vegetation Strata:
A. A.   B. A.   B. B.   B. <td></td> <td></td> <td></td> <td>Tree – Woody plants 3 in. (7.6 cm) or more in diameter</td>				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
Sapling/shrub – Woody plants less than 3 in. DBH   a.   a.   a.   a.   a.   b.   b.   c.   c. <td>/</td> <td></td> <td></td> <td>at Diedst neight (DDi I), regardless of neight.</td>	/			at Diedst neight (DDi I), regardless of neight.
A.	3	-		Sapling/shrub – Woody plants less than 3 in. DBH and creater than or equal to 3.28 ft (1 m) tall.
III	J.			Harth All herbessour (non-weady) plants, regardless
Moody Vine Stratum       (Plot size:)				of size, and woody plants less than 3.28 ft tall.
Nody Vine Stratum (Plot size:)   I				Woody vines – All woody vines greater than 3.28 ft in
Noody Vine Stratum (Plot size:)     No	2	95		height.
Woody Vine Stratum (Plot size:)	3	10		
Image: Image	Noody Vine Stratum (Plot size:)			
Hydrophytic       Hydrophytic       Hydrophytic       Vegetation       Present?       Yes       No		_		
B.		_		
Image: Alternative state     Image: Alternat	3			Hydrophytic Vegetation
Remarks: (Include photo numbers here or on a separate sheet.)	4 `			Present? Yes <u>V</u> No
Remarks: (Include photo numbers here or on a separate sheet.)		<u> </u>	= Total Cover	
	Remarks: (Include photo numbers here or on a separate	 sheet.)	= Total Cover	

000

UPA-USAmpling Point: PETU
---------------------------

SOIL					OAN	Sampling Point:
Profile Des	cription: (Describe to the	depth needed to docum	ent the indicator	or confirm	the absence of indic	cators.)
Depth	Matrix Color (moist) %	Redox	Features		Texture	Remarks
()- V)	$\frac{1}{1001741}$		<u></u>		Sanduleran	A co
$\underline{V}$	101F2 UL	I UN 10			Sand Ton	¥ <u>}</u>
					U	
					······································	
127						
					·	
	· · · · · · · · · · · · · · · · · · ·			·		
·						
			(:	<del></del>		
-					21 11 1 11 1	Line Manual
'Type: C=C	oncentration, D=Depletion,	RM=Reduced Matrix, MS	=Masked Sand Gra	ains.	Location: PL=P	ore Lining, M=Matrix.
Hyaric Soll	indicators:	Del selos Delso	0		and Muck (A)	
Histosof	(A1) Vinadan (A2)	Polyvalue Below	Surface (S8) (LKR	К К,	2 Cm Muck (A	$\frac{10}{(LRR R, L, MLRA 143B)}$
	stic (A2)	Thin Dark Surfac	o (SQ) (I PP P MI	RA 140R)	5 cm Mucky P	eat or Peat (S3) (LRR K. L. R)
Hydroge	siic (A3) In Sulfide (A4)	L namy Mucky M	neral (F1) (LRR K.	. L)	Dark Surface (	(S7) ( <b>LRR K.</b> L)
Stratified	Lavers (A5)	Loamy Gleved N	latrix (F2)	, _,	Polyvalue Belo	ow Surface (S8) (LRR K, L)
Depleted	Below Dark Surface (A11	) X Depleted Matrix	(F3)		Thin Dark Sur	face (S9) (LRR K, L)
Thick Da	ark Surface (A12)	Redox Dark Surf	ace (F6)		Iron-Mangane	se Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)	Depleted Dark S	urface (F7)		Piedmont Floo	odplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)	Redox Depressio	ons (F8)		Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)				Red Parent Ma	aterial (F21)
Stripped	Matrix (S6)				Very Shallow	Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, MLRA	149B)			Other (Explain	in Remarks)
3				No to obtain		
"Indicators of	hydrophytic vegetation an	d wetland hydrology must	be present, unless	saisturbea	or problematic.	
Restrictive	Layer (IT observed):					
Type: T						X
Depth (inc	ches):				Hydric Soil Preser	nt? Tes <u></u> No
Remarks:						
					1	

WETLAND DETERMINATION DATA FORM	M – Northcentral and Northeast Region
Project/Site: Lake and Connector City/Cou	inty: The Contract Sampling Date:
Applicant/Owner: ITCHOlding	State: 24 Sampling Point: WA-VA-039
Investigator(s): UAS Section,	Township, Range: MON IN PIA
Landform (hillslope, terrace, etc.):	(concave, convex, none):
Subregion (LRR or MLRA): MLVA RO Lat: 41, 97409	Long: 20 369574 Datum:A0 8 ->
Soil Map Unit Name:	NWI classification:( / /-( )
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbe	d? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic	? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing samp	ling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Vegetation Present?	s the Sampled Area
Hydric Soil Present? Yes X No W	vithin a Wetland? Yes <u>x</u> NO
Wetland Hydrology Present? Yes No If	yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.)	UNITE SALLE EN Proder ST
He walks alardel 35 ftm	and rout to those hoad
nycin Esis	of the alters retard
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (	(B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor	(C1) Crayfish Burrows (C8)
Sediment Deposits (B2)	on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced In	ron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rema	mks) Microtopographic Reliet (D4)
Sparsely Vegetated Concave Surface (B8)	
Field Observations:	6
Surface Water Present? Yes X No Depth (Inches): XX	we
Water Table Present? Yes <u>V</u> No Depth (inches): <u>1</u>	
Saturation Present? Yes <u>&gt;</u> No Depth (inches): <u>&gt;</u> (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previo	ous inspections), if available:
NON	
Remarks:	
Man	
	· · ·

(t)

Trans Stratum (Plat aiza)	Absolute % Cover	Dominant	Indicator	Dominance Test worksheet:
ree Stratum (Plot size)	<u>1000001</u>	- Clear	FAC	Number of Dominant Species
(VI DAL MULANY)	-49			
				Total Number of Dominant
·				Species Across All Strata.
				Percent of Dominant Species
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
٨	40_	= Total Cov	ver	OBL species x1 =
Sapling/Shrub Stratum (Plot size:				FACW species x 2 =
Comos amomum	30	4	FACIO	FAC species x 3 =
L'important in a source in	5	N	UPI-	FACU species x 4 =
- Cardora - Jelotticar				UPL species x 5 =
*				Column Totals: (A) (B)
	_			Prevalence Index = B/A =
N				Hudrophytic Vegetation Indicators:
R				1 - Rapid Test for Hydrophytic Vegetation
·				$\frac{1}{2}$ - Dominance Test is >50%
C \	135	= Total Cov	/er	3 - Prevalence Index is ≤3.0 ¹
lerb Stratum (Plot size:)	16-			4 - Morphological Adaptations ¹ (Provide supporting
JUNIOS CHOD	1.0	$\underline{N}$	OR	data in Remarks or on a separate sheet)
Soldar noosa	25	1	tAC_	Problematic Hydrophytic Vegetation ¹ (Explain)
Averima Phine nummolana	35	1	FALL	1
- Persone Sagitation	OI	N	CRL	be present, unless disturbed or problematic.
SUVERIS WERMAN	10	N	OBJ	Definitions of Venetation Strata
Tulichium avuidingeum	- 6	N	OPT.	
	-			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
•				and greater than or equal to 3.28 ft (1 m) tall.
·				
0				of size, and woody plants less than 3.28 ft tall.
1				All unade vises areator than 2.29 ft in
2	180			height.
	0	= Total Co	ver	
Voody Vine Stratum (Plot size:)				
- Vone				
r	_			
				Hydrophytic
				Vegetation Present? Yes No
	2	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)	= Total Co	ver	

	ription: /Decally	to the dead	nonded to de-	umont the	Indiante	r or confirm	n the abconce	of indicato	rs.)	
Depth	Matrix	to the depti	n needed to doc Ref	dox Feature	naicator	r or comm	I ule absence		a.,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			Remarks	
0-8	101Pul	85	25448	12	2	VI_	Sandy	10an		
6-11.	NURUG	70	25146	$-\frac{1}{20}$	D	PI	Sandy	loan		
		<u>.</u>	110 5/0	$-\frac{20}{10}$	-1-	- IL		(00)	1	
	3		MIC 8	<u>    10    </u>	$\underline{\mathbf{v}}$					_
				-	• (2 <b>•</b>			-		
	-				-					
					·	-				
	÷									
	<u>1 - 1 - 1</u>									
										_
¹ Type: C=Co	ncentration, D=Dep	pletion, RM=	Reduced Matrix,	MS=Maske	d Sand G	irains.	² Location	: PL=Pore I	ining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators	for Probler	natic Hydric Sol	ils ³ :
Histosol	(A1)	-	Polyvalue Bel	low Surface	(S8) (LR	RR R,	2 cm M	luck (A10) (	LRR K, L, MLRA	149B)
Histic Ep	ipedon (A2)		MLRA 149	B) face (S0) (I			Coast	Praine Redo Aucky Post (	0X (A16) (L <b>RK K</b> , or Reat (S3) (I <b>P</b> I	L, K) D K   D \
Black His	SLIC (A3) 5 Sulfide (A4)	-	_ Inin Dark Su	nace (59) ( / Mineral (F	1) (I RR I	nlka 1490 K   )	Dark S	Surface (S7)	(LRR K. L)	<b>x (x</b> , <b>L</b> , <b>(</b> x)
Stratified	Lavers (A5)		Loamy Gleve	d Matrix (F2	2)	~ _/	Polyva	lue Below S	Surface (S8) (LRF	R K, L)
Depleted	Below Dark Surfac	:e (A11) 👌	Z Depleted Mat	rix (F3)	,		Thin D	ark Surface	(S9) (LRR K, L)	
Thick Da	rk Surface (A12)	-	Redox Dark S	Surface (F6)	)		Iron-M	anganese N	lasses (F12) (LR	R K, L, R)
Sandy M	ucky Mineral (S1)	-	_ Depleted Dark	k Surface (I	-7)		Piedm	ont Floodpla	in Soils (F19) (M	ILRA 1498
Sandy G	leyed Matrix (S4)	-	Redox Depres	ssions (F8)			Mesic	Spodic (TAt	5) (MLKA 144A,	145, 1498
Sandy Re Stringed	edox (S5) Motrix (S6)						Verv S	arent waten Shallow Dark	Surface (TF12)	
Suipped Dark Sur	face (S7) (LRR R. I	MLRA 149B)					Other	(Explain in F	Remarks)	
		,								
³ Indicators of	hydrophytic vegeta	tion and wet	and hydrology m	ust be pres	ent, unles	ss disturbed	d or problemation	C		_
Restrictive L	ayer (if observed):	:							$\sum$	
Туре:									X	N
Depth (inc	hes):						Hydric Sol	Present?	Yes	NO
Remarks:										
			Sec. 1							
			>							
		1						-E		
		0								

WETLAND DETERMINA	TION DATA FORM	- Northcentral and No	ortheast Region
Project/Site: Lake Ene Conner	City/Cour	ity: <u>Sne (0</u>	Sampling Date: 2/2//14
Applicant/Owner: 110 to duby		State:	Sampling Pointt
Investigator(s);	Section,	Township, Range:	me inta
Landform (hillslope, terrace, etc.); NON	Local relief (	concave, convex, none):	Slope (%): ()
Subregion (LRR or MLRA): Lat:	41.97278e1	Long: -80-39b	046 Datum: 14083
Soil Map Unit Name:		NW	I classification:
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	No (If no, ex	plain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed	? Are "Normal Circums	stances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic	? (If needed, explain a	ny answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	ap showing sampl	ing point locations, tra	insects, important features, etc.
Hydrophytic Vegetation Present?     Yes       Hydric Soil Present?     Yes       Wetland Hydrology Present?     Yes	No kine kine kine kine kine kine kine kine	the Sampled Area thin a Wetland? Ye ves. optional Wetland Site ID:	es No
Remarks: (Explain alternative procedures here or in a	separate report.)	yes, optional wetland one ib.	······
UPL-1245-0351		•	
HYDROLOGY			
Wetland Hydrology Indicators:		Second	ary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check	all that apply)	Sur	face Soil Cracks (B6)
Surface Water (A1) V	Vater-Stained Leaves (E	39) Dra	ainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Mo	ss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry	-Season Water Table (C2)
U Water Marks (B1) H	Hydrogen Sulfide Odor (	C1) Cra	ayfish Burrows (C8)
Sediment Deposits (B2)	Dxidized Rhizospheres of	on Living Roots (C3) Sat	turation Visible on Aerial Imagery (C9)
Drift Deposits (B3) F	Presence of Reduced Irc	in (C4) Stu	Inted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Solis (C6) Ge	
I Iron Deposits (B5) T	Thin Muck Surface (C7)	Sna	allow Aquitaro (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remark		C Noutral Tast (D5)
Sparsely Vegetated Concave Surface (B8)			
Field Observations:	Death (inches):		
	Depth (inches):		
Water Lable Present? Yes No	Depth (inches):	Wotland Hydrolog	TV Present? Ves No
(includes capillary fringe)	Depth (Inches):		
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previo	us inspections), if available:	
Non			
Remarks:			
hone			
			h.



VEGETATION -	Use	scientific	names	of	plant	S
--------------	-----	------------	-------	----	-------	---

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
			Number of Dominant Species
			(A)
2	· ·		Total Number of Dominant Control (B)
۵	•		Descent of Descinent Section
-			That Are OBL, FACW, or FAC:
5			
6			Prevalence index worksheet:
7	$\overline{\Omega}$		
	U_	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			FAC species x3 =
1. Nove			FACU species x4 =
2		·	IPI species x5=
3		· ·	Column Totals: (A) (B)
4			
5			Prevalence Index = B/A =
6		· ·	Hydrophytic Vegetation Indicators:
7.	5		1 - Rapid Test for Hydrophytic Vegetation
	$\bigcirc$	= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size:	-		3 - Prevalence Index is ≤3.0°
1 Solicinon candensis	20	FAEL	data in Remarks or on a separate sheet)
2 John multiflamm	26)	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
Plantzion Concentrat	20	V FACI	
· Salada and income	R	N GAA	¹ Indicators of hydric soil and wetland hydrology must
4. Sorciago nepsa	10		be present, unless disturbed of problematic.
b		•1•0•	Definitions of Vegetation Strata:
6	-		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	- S.		at breast height (DDH), regardless of height.
8	-		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9	• 2•		Herb – All herbaceous (non-woody) plants, regardless
11		->	of size, and woody plants less than 3.28 ft tall.
12	• • • • • • • • • • • • • • • • • • • •		Woody vines - All woody vines greater than 3.28 ft in
12	(ID	= Total Cover	height.
West Mine Stratum (Blat size:			
(Plot size)			
2,			I hadaa ahadia
3			Vegetation
4	$\overline{\mathcal{O}}$	- Total Cavar	Present? Yes No
Remarker (Include abote numbers here or on a separate	sheet )	_ = 1 otal Cover	
Remarks: (include photo numbers here of on a separate	Sheet.)		
			8

SOIL

x		Sampling Point: 05
otion: (Describe to the dep	th needed to document the indicator or confirm t	he absence of indicators.)
Matrix	Redox Features	

Profile Desc	cription: (Describe to the de	pth needed to docum	nent the indicato	r or confirm ti	he absence of indica	itors.)	
Depth	Matrix Color (maint)	Color (maint)	x Features	Loc ²	Texture	Remarks	
(inches)					branc		
OHL	WIK 3 W		·		Courty 2		
	5				3		
					-5)		
			2 <b></b> 2 <b>-</b>		· · · ·		
			· · · · · · · · · · · · · · · · · · ·				
37							
:							
	······································						,
		•	· · · · · · · · · · · · · · · · · · ·				
	•						
							:
	oppoption D-De-letter D	A=Reduced Metric MC		irains	2 ocation: PI =Po	re Lining, M=Ma	trix.
Hydric Seil	Indicators:	m-reduced matrix, MS	-waaneu Sario C		Indicators for Proh	lematic Hydric	Soils ³ :
Listees	(A1)	Polyvalue Bolow	V Surface (SA) /I	RR.	2 cm Muck (A1)	0) (LRR K. L. MI	LRA 149B)
Histic Fr	pipedon (A2)	MLRA 149B)	(U) (U)		Coast Prairie R	edox (A16) (LRF	₹ K, L, R)
Black Hi	istic (A3)	Thin Dark Surfa	ce (S9) (L <b>RR R, M</b>	WLRA 149B)	5 cm Mucky Pe	at or Peat (S3) (	LRR K, L, R)
Hydroge	n Sulfide (A4)	Loamy Mucky N	1ineral (F1) (LRR	<b>K, L</b> )	Dark Surface (S	67) ( <b>LRR K,</b> L)	
Stratified	d Layers (A5)	Loamy Gleyed	Matrix (F2)		Polyvalue Below	w Surface (S8) (	LRR K, L)
Depleted	d Below Dark Surface (A11)	Depleted Matrix	(F3)		Thin Dark Surfa	ace (S9) (LRR K	, L) // PP //
Thick Da	ark Surface (A12)	Redox Dark Sur	nace (F6)		Iron-Manganes	e Masses (F12)	(LKK K, L, R)
Sandy N	Nucky Mineral (S1)	Depleted Dark S	Suпace (F7)		Mesic Specie (	аріант ЗОЛІЗ (Р'19 ТАб) (МІ РА 144	A 145 1490)
Sandy C	pleyeu Matrix (S4) Jodov (S5)	Redox Depress	ions (r'o)		Red Parent Ma	terial (F21)	
Sandy F	Neuun (30) 1 Matrix (SR)				Verv Shallow D	ark Surface (TF	12)
Dark Su	face (S7) (LRR R MI PA 14)	98)			Other (Explain	in Remarks)	
Daik Su		,			,,	.,	
³ Indicators of	f hydrophytic vegetation and v	vetland hydrology mus	t be present, unle	ss disturbed o	r problematic.		
<b>Restrictive</b>	Layer (if observed):						SELEXA
Туре:						0 ¥	$\nabla$
Depth (inc	ches):				Hydric Soil Present	(r ¥85	NO /
Remarks:							1