

## Wetland Delineation Report

Lynn Bark Energy Center

PREPARED FOR Lynn Bark Energy Center, LLC

DATE 25 October 2024

REFERENCE 0718084



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## 1. INTRODUCTION

On behalf of Lynn Bark Energy Center, LLC (Lynn Bark), Environmental Resources Management (ERM) performed an onsite wetland and waterbody delineation within the proposed Lynn Bark Energy Center Project, a proposed up to 200-megawatt solar photovoltaic facility in Martin County, Kentucky (Project). The Project area consists of approximately 1,514 acres located on the east side of Kentucky Highway 3, approximately 6.5 miles south of Inez, Martin County, Kentucky (Site; Project Boundary). The following report describes existing Site conditions, methodologies, and findings associated with this site assessment.

ERM conducted an onsite wetland and waterbody delineation to identify possible wetlands and waterbodies, including potential streams and open waterbodies, within the Site. Twenty potential wetlands totaling 2.935 acres and 19 stream features totaling 26,492 linear feet were identified within the Site.

### 2. SITE LOCATION

The Site is located in Martin County, Kentucky, approximately 6.5 miles south of the city of Inez (Appendix A, Figure 1). The Site is approximately 1,514 acres of undeveloped forest and pasture land on a reclaimed surface mine (Appendix A; Figure 1 and 2).

## 3. METHODOLOGY

Waters of the United States (WOTUS), including wetlands, are federally protected under Section 404 of the Clean Water Act (CWA). On August 29, 2023, the agencies issued a final rule to amend the January 2023 Rule, to conform the definition of "waters of the United States" to the Supreme Court's decision in Sackett. This conforming rule amends the provisions of the agencies' definition of "waters of the United States" that are invalid under the Supreme Court's interpretation of the CWA in the Sackett decision and became effective on September 8, 2023, upon publication in the Federal Register. The definition of a wetland is "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas" (Code of Federal Regulations §230.3(t)).

Additionally, on April 12, 2023, a district court judge in North Dakota issued an order with 23 additional states, including Kentucky, enjoining the issuance of the January 2023 Rule and in these states the pre-2015 regulatory regime consistent with the decision of *Sackett vs U.S. Environmental Protection Agency.* 

ERM delineated wetlands and WOTUS at the Site on August 9-11, 2024. All surveys were conducted in accordance with the three-parameter methodology outlined in the 1987 USACE *Wetlands Delineation Manual* (Manual), the 2012 *Regional Supplement to the Corps of Engineers* 



*Wetland Delineation Manual: Eastern Mountain and Piedmont, Version 2.0*, and per recent guidance issued jointly by the U.S. Environmental Protection Agency (EPA) and the USACE<sup>1</sup>.

The three parameters required for identifying a jurisdictional wetland are as follows:

- <u>The presence of hydrophytic vegetation</u> Hydrophytic vegetation is determined by the dominant species present at any given data point, where each species is assigned a plant indicator status as to its preference/tolerance for wetland conditions. Data points having dominant species that are greater than 50 percent facultative or wetter are considered to meet the hydrophytic vegetation criterion.
- <u>The presence of hydrology</u> Each data point is evaluated for evidence of wetland hydrology or persistent saturation or inundation of soils. The Manual identifies both primary and secondary hydrologic indicators, and one primary indicator or two secondary indicators must be observed in order for the sample point to meet the hydrology criterion. Indicators include saturated soils in the upper 12 inches, inundation, water marks, drift lines, sediment deposits, drainage patterns, oxidized root channels in the upper 12 inches, water-stained leaves, local soil survey data, and others.
- <u>The presence of hydric soils</u> Soil in each sample plot is sampled with a soil spade to a depth of at least 16 inches, or to the B horizon, whichever appears first. The delineator obtains a profile description and identifies hydric soil indicators based on soil texture(s) and soil color(s). Soil textures are determined by manual tactile sampling. Soil colors (in a moist condition) are compared to Munsell Soil-Color charts (2009 Edition, 2015 production year, Munsell Color, Grand Rapids, MI, USA) to determine hue, value, and chroma to determine if hydric characteristics are present.

An area is classified as a wetland only in instances where all three parameters exist under normal circumstances. If one or more criteria are absent, then the area is deemed upland.

To identify wetlands and WOTUS within the Site, the area was traversed on foot. Data points were taken within the Site to verify or refute the presence of wetland soils, vegetation, and hydrology. USACE wetland data forms were completed at each sample point. One corresponding upland community sample point was also taken for each wetland or wetland complex. If more than one type of wetland was observed within a larger wetland complex, the boundaries of the different types were identified, and separate USACE wetland data forms were completed for each type within the complex. Completed USACE Eastern Mountains and Piedmont Region wetland determination data forms are presented in Appendix C.

ERM utilized a Trimble R1 Submeter Global Positioning System receiver to obtain coordinates for the wetland data points, wetland boundaries, and waterbody boundaries during the field survey effort. This unit is capable of sub-meter accuracy (following post-processing and differential correction via a known base station) and allows the digital data to be incorporated into drawings for mapping/design purposes.

<sup>&</sup>lt;sup>1</sup> EPA Current Definition of "Waters of the United States". 18 December 2023. https://www.epa.gov/wotus/current-implementation-waters-united-states



#### 4. RESULTS

The following sections present the results of the desktop analysis and the wetland and WOTUS field surveys conducted on August 9-11, 2024.

#### 5. EXISTING SITE CONDITIONS

Based on a review of aerial orthoimagery and field observations from the Site visit, pasture is the predominant land use within the surfaced stripe mined section of the Site and forested riverine habitats around the mined area. Online database research identified the mine, which occupies the limits of the Site, with Mine Safety and Health Administration (MSHA) Mine ID Number 1512132 and is listed as abandoned with the latest status update September 24, 1991. The Surface Mining Information Service (SMIS) website search under permit number 8800032 that the mine as of June 2015 has been granted complete release.

The Site is in the Dissected Appalachian Plateau Level IV EPA Ecoregion. Topography consists of narrow ridges, deep coves, and narrow valleys and is mostly forested (Woods et. al 2002). Elevation ranges near the Site are from 1,000 to over 1,500 feet above mean sea level (AMSL). The Site being on a reclaimed surface stripe mine the topography within the Site has been altered to an undulating plateau surrounded by deep coves and narrow valleys.

The Site is located in two watersheds, Upper Rockcastle Creek sub watershed (Hydrologic Unit Code [HUC] 050702010605) and the Coldwater Fork sub watershed (HUC 050702010603). The northern half of the Project area is drained by the Venters Branch, Jones Branch, and Mullet Branch, and their unnamed tributaries which ultimately drain to Rockcastle Creek. The southern portion of the Project area is drained by Lynn Bark Fork which ultimately drains into the Coldwater Fork (USGS 2024). Surface water runoff generally drains to constructed drainage features that flow to native drainage features throughout the Site as shown in Figure 3. No waterways are present withing the Site boundary that would require a special use or cold-water habitat designation. (e.g., Outstanding State Resource Waters, Coldwater Aquatic Habitats, or other Special Use Waters) from the Kentucky Division of Water (KDOW) (KDOW, 2024).

Soil series within the Site were identified using the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Martin County soil survey. Soils within the Site consist primarily of Fiveblock, Fairpoint, and Kaymine soils, 30 to 80 percent slopes, stony and Fiveblock, Fairpoint, and Kaymine soils, 6 to 30 percent slopes, stony. (USDA 2019; Appendix A; Figure 3; Tables 1 and 2):



Map Unit Symbol	Map Unit Name	Acres within Site	Percentage of Site	Hydric?
FiB	Fiveblock, Fairpoint, and Kaymine soils, 0 to 6 percent slopes, stony	85.5	5.70	No
FiD	Fiveblock, Fairpoint, and Kaymine soils, 6 to 30 percent slopes, stony	379	25	No
FiF	Fiveblock, Fairpoint, and Kaymine soils, 30 to 80 percent slopes, stony	656	43.3	No
RaF	Rayne-Marrowbone-Dekalb complex, 20 to 80 percent slopes, very rocky	36.4	2.40	No
uCskF	Cloverlick-Shelocta-Kimper complex, 20 to 80 percent slopes, very stony	116	7.70	No
uHfsF Handshoe-Fedscreek-Shelocta complex, 30 to 80 percent slopes, very stony		241	15.9	No
	Total Acreage	1,514		

#### TABLE 1 SUMMARY OF SOILS WITHIN THE SITE

Based on a review of the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, 1.5 acres along Lynn Bark Fork is within 100-year floodplain (Zone A) and the remainder of the Site is located within an area designated as Zone X, Areal of Minimal Flood Hazard. A copy of the FEMA FIRMs in connection with the Site is depicted as Figure 4 in Attachment A.

A review of U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data indicates approximately 11 acres of NWI Riverine (R5UBH) features are located within the Site, but no wetland or open water features (freshwater ponds) are present within the Site boundaries (Appendix A; Figure 5). USGS National Hydrology Dataset (NHD) mapping indicates approximately 18,162 linear feet of potential stream features with 17,690 linear feet of potential "Perennial Stream" NHD features and 472 linear feet of ditch features within the Site (Appendix A; Figure 5).

In anticipation for the collection of data during the site visit, climatic conditions for the Site were obtained utilizing the USACE and EPA Antecedent Precipitation Tool (APT) which compares antecedent rainfall conditions for a given location to the range of normal rainfall conditions that occurred during the preceding 30 years to determine normal climatic conditions. The APT indicated that drier than normal conditions were present during the 2024 delineation effort. These conditions were taken into consideration during the delineation effort. A copy of the APT results is included in Appendix B.

Based on a review of historical aerial imagery obtained from Googe Earth, the Site historically consisted of undeveloped forested areas. Google Earth aerial imagery dated 1995 depicts this area as in the process of being stripped mined. In the 1985 Google Earth historical aerial imagery, mining activities are starting in the southcentral portion of the proposed Site while the remainer of the Site undeveloped and forested (Google Earth 2024).



#### 5.1 WETLANDS

During the onsite delineation, ERM identified 20 wetlands totaling 2.935 acres within the Site, all were classified as palustrine emergent (PEM) wetlands (Tables 3 and 4). Nineteen of the 20 wetlands identified were isolated and located in the reclaimed portion of the stripe mine. All the wetland features had similar plant species, were located in depression / concave areas, and had disturbed soils where soil pits ranged from 6 to 10 inches from the surface before rock and gravel were encountered. The one natural wetland was located along perennial Stream 19 in an area with no mining activity. Representative photographs of the wetlands are presented in Appendix C.

Based on ERM's professional opinion, 19 of the 20 wetlands within the Site are classified as nonjurisdictional features, as they were observed isolated and not adjacent to relatively permanent waters (RPWs). Wetland 20 is a wetland adjacent to an RPW and is classified as potentially jurisdictional. Preliminary jurisdictional opinion is based off the current definition of WOTUS for the State of Kentucky at the completion of this report, Pre-2015 Regulatory Regime consistent with the decision of *Sackett v. U.S. Environmental Protection Agency*. Table 2 lists each wetland by a unique Feature ID, Cowardin classification, feature acreage, and preliminary jurisdictional opinion. The delineated wetland features are shown in Appendix A, Figure 6. A photographic log of representative wetland types is presented in Appendix C. Additional details and justifications for the classification of the wetlands can be found on the USACE Wetland Determination Data Forms, provided in Appendix D.



#### TABLE 2 WETLANDS IDENTIFIED WITHIN THE SITE

Feature	Cowardin Classification <sup>1</sup>	Area (Acres) <sup>2</sup>	Preliminary Jurisdictional Opinion <sup>3</sup>
Wetland 01	PEM	0.036	Potentially Non-Jurisdictional
Wetland 02	PEM	0.047	Potentially Non-Jurisdictional
Wetland 03	PEM	0.075	Potentially Non-Jurisdictional
Wetland 04	PEM	0.166	Potentially Non-Jurisdictional
Wetland 05	PEM	0.288	Potentially Non-Jurisdictional
Wetland 06	PEM	0.472	Potentially Non-Jurisdictional
Wetland 07	PEM	0.197	Potentially Non-Jurisdictional
Wetland 08	PEM	0.063	Potentially Non-Jurisdictional
Wetland 09	PEM	0.177	Potentially Non-Jurisdictional
Wetland 10	PEM	0.128	Potentially Non-Jurisdictional
Wetland 11	PEM	0.035	Potentially Non-Jurisdictional
Wetland 12	PEM	0.085	Potentially Non-Jurisdictional
Wetland 13	PEM	0.063	Potentially Non-Jurisdictional
Wetland 14	PEM	0.055	Potentially Non-Jurisdictional
Wetland 15	PEM	0.223	Potentially Non-Jurisdictional
Wetland 16	PEM	0.043	Potentially Non-Jurisdictional
Wetland 17	PEM	0.255	Potentially Non-Jurisdictional
Wetland 18	PEM	0.032	Potentially Non-Jurisdictional
Wetland 19	PEM	0.137	Potentially Non-Jurisdictional
Wetland 20	PEM	0.358	Potentially Jurisdictional
	Total PEM	2.935	
Total		2.935	

<sup>1</sup> Classifications are based on ERM's professional judgment of actual field conditions.

<sup>2</sup> Feature size within Site

<sup>3</sup> Jurisdictional determinations and boundaries when presented are preliminary and subject to final verification by the U.S. Army Corps of Engineers (USACE) and Kentucky Division of Water (KDOW). Jurisdictional features are regulated by USACE and KDOW. Non-Jurisdictional features are not regulated by USACE or KDOW.

#### 5.2 WATERS

#### 5.2.1 STREAMS

ERM identified 19 stream features totaling 26,492 linear feet which include 3 perennial stream segments totaling 5,086 linear feet, 9 intermittent stream segments totaling approximately 12,441 linear feet, 13 ephemeral stream segments totaling approximately 6,081 linear feet, and 2 ditch



features totaling approximately 2,884 linear feet (Figure 7). Portions of the same stream feature were identified with varying flow classes. Photographs of the stream features are presented in Appendix C.

The identified perennial and intermittent streams are considered potentially jurisdictional features, classified as RPWs. The remaining features, classified as ephemeral stream and ditch features, are not considered RPWs and would most likely not be considered jurisdictional. Table 3 lists each stream by a unique feature name, hydrologic flow regime, length in linear feet, and preliminary jurisdictional opinion.

Feature ID	Flow Regime	Length (Linear feet) <sup>7</sup>	Preliminary Jurisdictional Opinion <sup>8</sup>
Ditch 1	Ephemeral	404	Potentially Non Jurisdictional
Ditch 2	Ephemeral	2,480	Potentially Non Jurisdictional
Stream 1	Perennial	883	Potentially Jurisdictional
Stream 1	Ephemeral	221	Potentially Non Jurisdictional
Stream 2	Ephemeral	207	Potentially Non Jurisdictional
Stream 2	Perennial	66	Potentially Jurisdictional
Stream 2	Intermittent	230	Potentially Jurisdictional
Stream 3	Ephemeral	24	Potentially Non Jurisdictional
Stream 4	Ephemeral	684	Potentially Non Jurisdictional
Stream 5	Intermittent	1,394	Potentially Jurisdictional
Stream 6	Ephemeral	863	Potentially Non Jurisdictional
Stream 7	Intermittent	651	Potentially Jurisdictional
Stream 7	Ephemeral	394	Potentially Non Jurisdictional
Stream 8	Ephemeral	379	Potentially Non Jurisdictional
Stream 9	Intermittent	2,536	Potentially Jurisdictional
Stream 10	Intermittent	1,277	Potentially Jurisdictional
Stream 11	Ephemeral	861	Potentially Non Jurisdictional
Stream 12	Intermittent	2,349	Potentially Jurisdictional
Stream 13	Ephemeral	712	Potentially Non Jurisdictional
Stream 14	Ephemeral	619	Potentially Non Jurisdictional

#### TABLE 3STREAMS IDENTIFIED WITHIN THE SITE



Feature ID	Flow Regime	Length (Linear feet) <sup>7</sup>	Preliminary Jurisdictional Opinion <sup>8</sup>
Stream 15	Intermittent	788	Potentially Jurisdictional
Stream 15	Ephemeral	646	Potentially Non Jurisdictional
Stream 16	Intermittent	1,714	Potentially Jurisdictional
Stream 16	Ephemeral	393	Potentially Non Jurisdictional
Stream 17	Ephemeral	77	Potentially Non Jurisdictional
Stream 18	Intermittent	1,500	Potentially Jurisdictional
Stream 19	Perennial	4,137	Potentially Jurisdictional
	Total Ephemeral	8,965	
	Total Intermittent	12,441	
	Total Perennial	5,086	
	Total	26,492	

<sup>7</sup> Classifications are based on ERM's professional judgment of actual field conditions.

<sup>8</sup> Feature size within Site

#### 5.2.2 OPEN WATERBODIES

No open water features were present within the Site.

#### 6. CONCLUSION

ERM conducted environmental field surveys on August 9 through August 11, 2024, to identify wetlands and waterbodies within the Lynn Bark Solar Project survey boundary in Martin County, Kentucky. Twenty potential wetlands totaling 2.935 acres and 19 streams totaling 26,492 linear feet were identified within the Site.

Of the delineated features, 20 potential wetlands totaling 2.935 acres, 19 potential stream or segments of potential streams totaling 26,492 linear feet were identified within the Site. All the wetlands were classified as palustrine emergent (PEM) wetlands and 19 of the 20 wetlands identified were isolated and located in the reclaimed portion of the strip mine.

Although these findings are based upon a survey utilizing USACE-approved protocols and current regulatory guidance, the USACE must make the official determinations on the presence or absence of jurisdictional WOTUS on Site through the jurisdictional determination process.



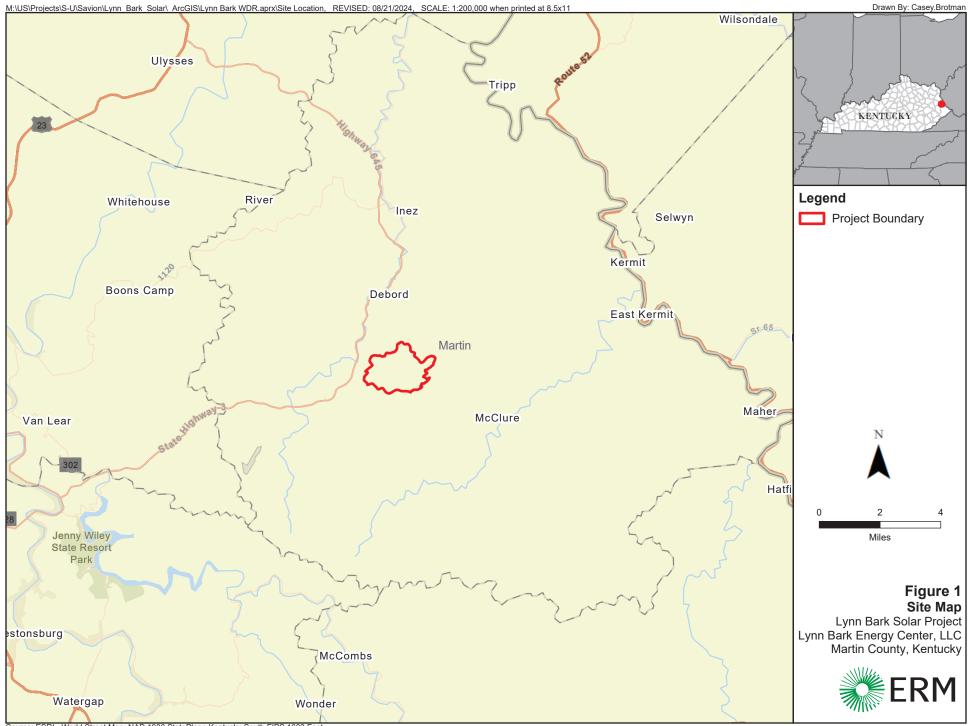
#### 7. REFERENCES

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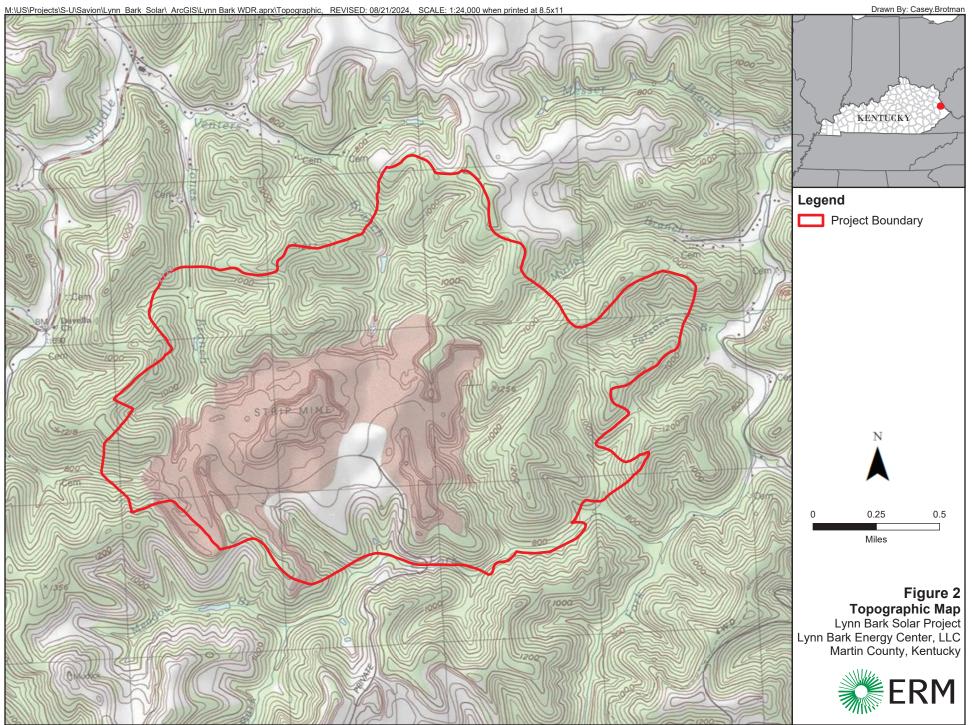




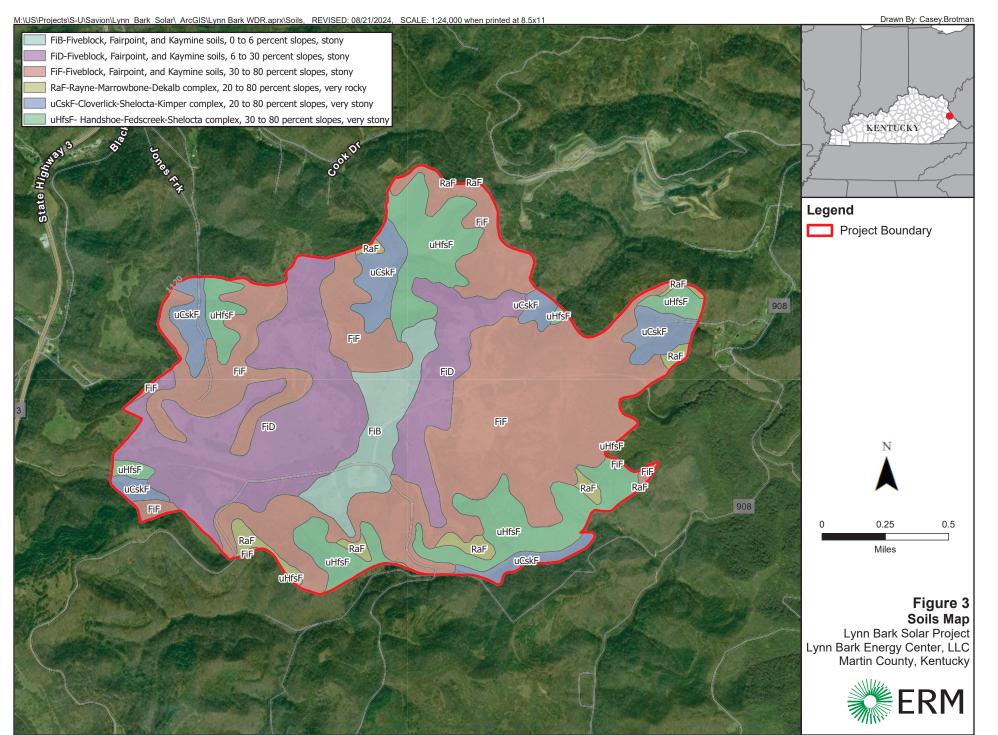
## APPENDIX A FIGURES



Source: ESRI - World Street Map; NAD 1983 StatePlane Kentucky South FIPS 1602 Feet

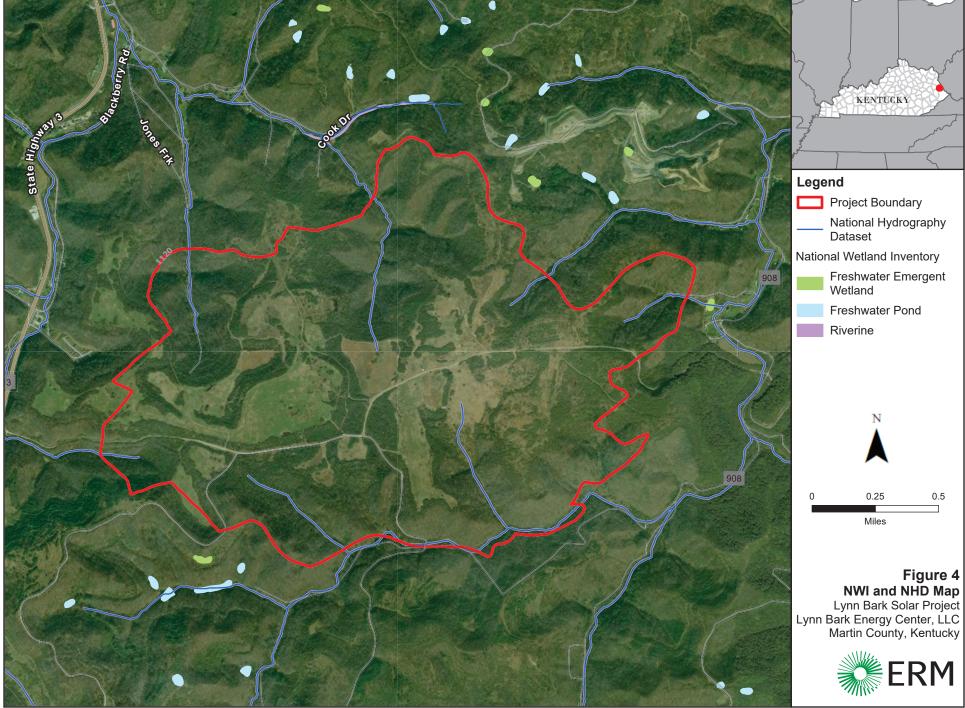


Source: USGS - Topo Maps (Map Service); NAD 1983 StatePlane Kentucky South FIPS 1602 Feet Inez, KY (2022)



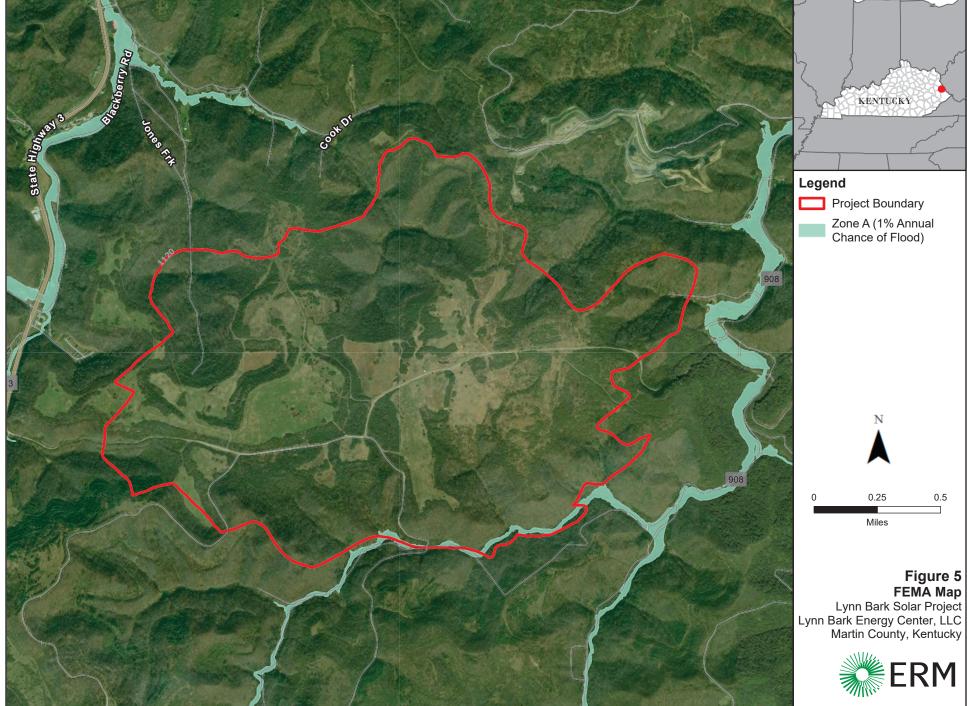
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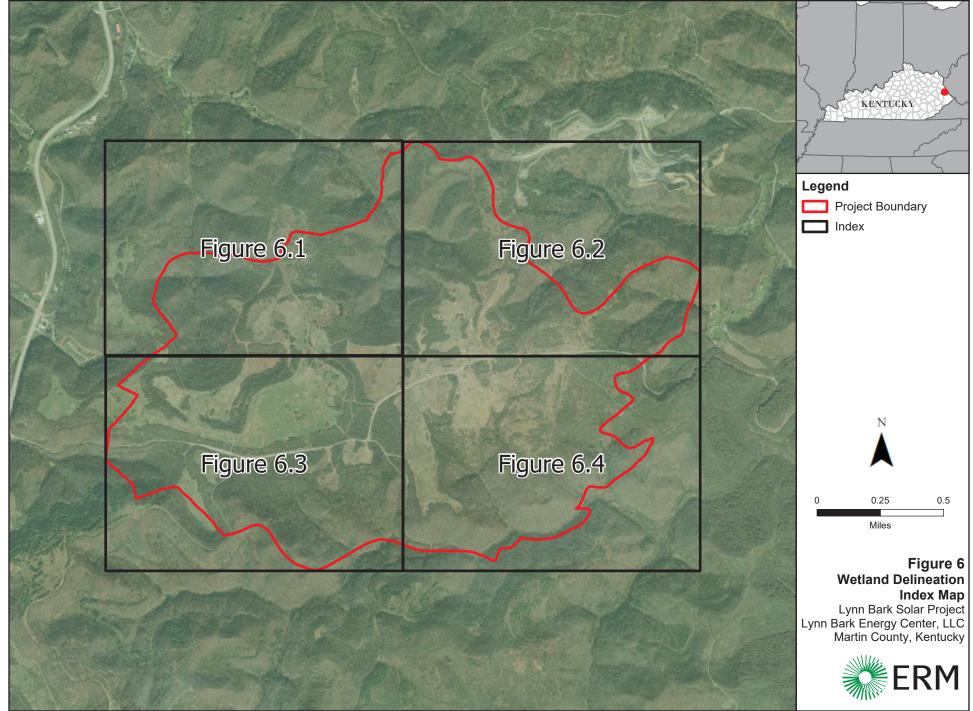


Source: ESRI - World Imagery; NAD 1983 StatePlane Kentucky South FIPS 1602 Feet U.S. Fish and Wildlife Service. National Wetland Inventory. U.S. Geological Survey. National Hydrography Dataset.





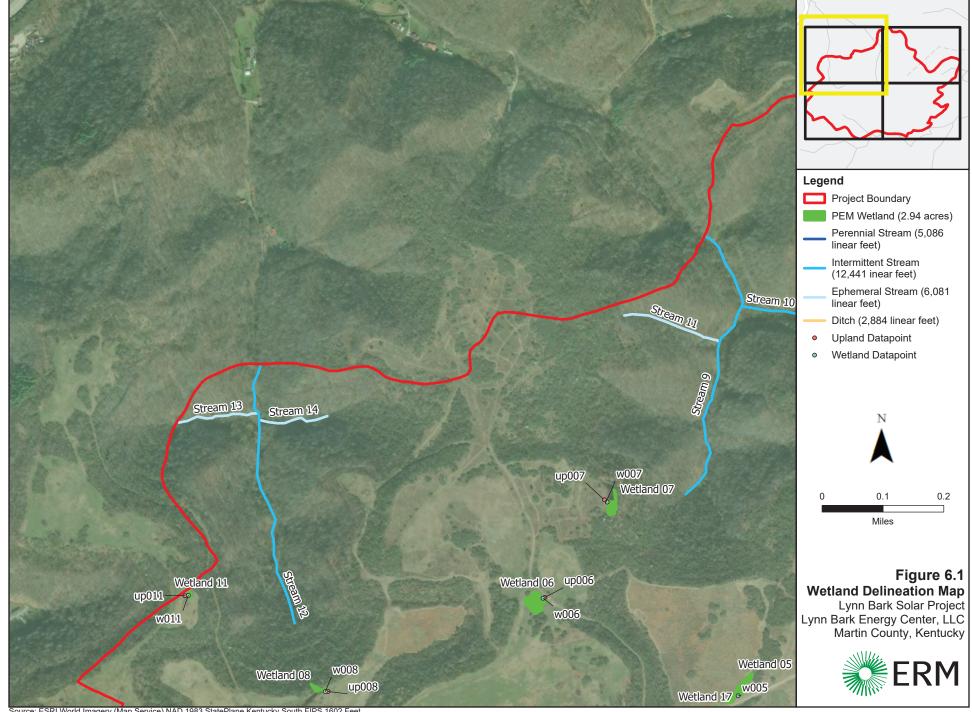
Source: ESRI - World Imagery; NAD 1983 StatePlane Kentucky South FIPS 1602 Feet FEMA Flood Map Service Center



Source: ESRI - World Imagery; NAD 1983 StatePlane Kentucky South FIPS 1602 Feet

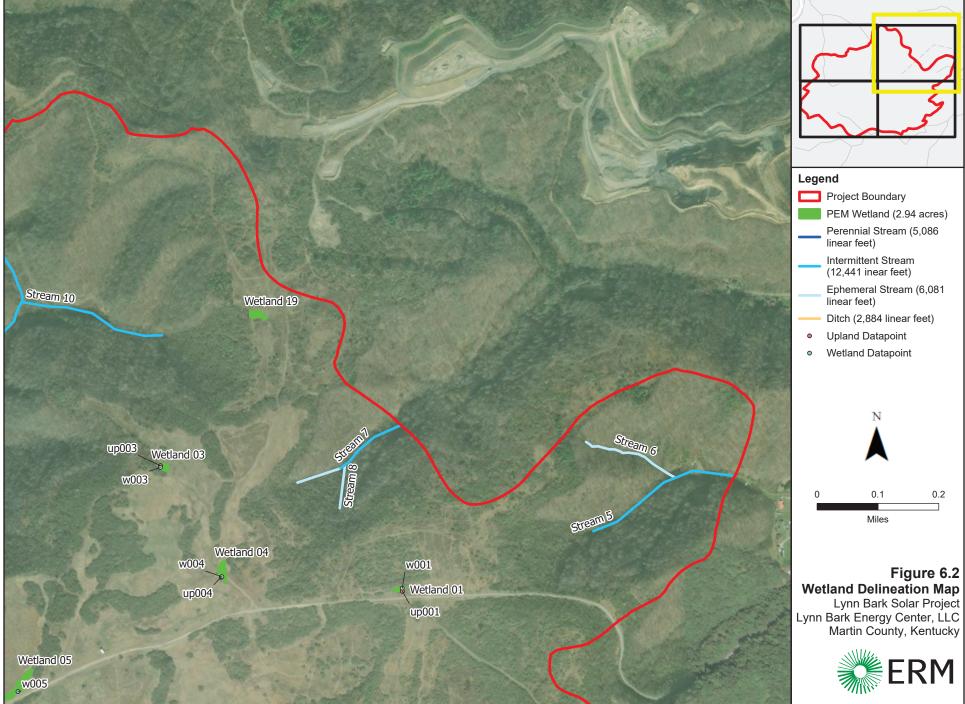
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Drawn By: Casey.Brotman



Source: ESRI World Imagery (Map Service) NAD 1983 StatePlane Kentucky South FIPS 1602 Feet

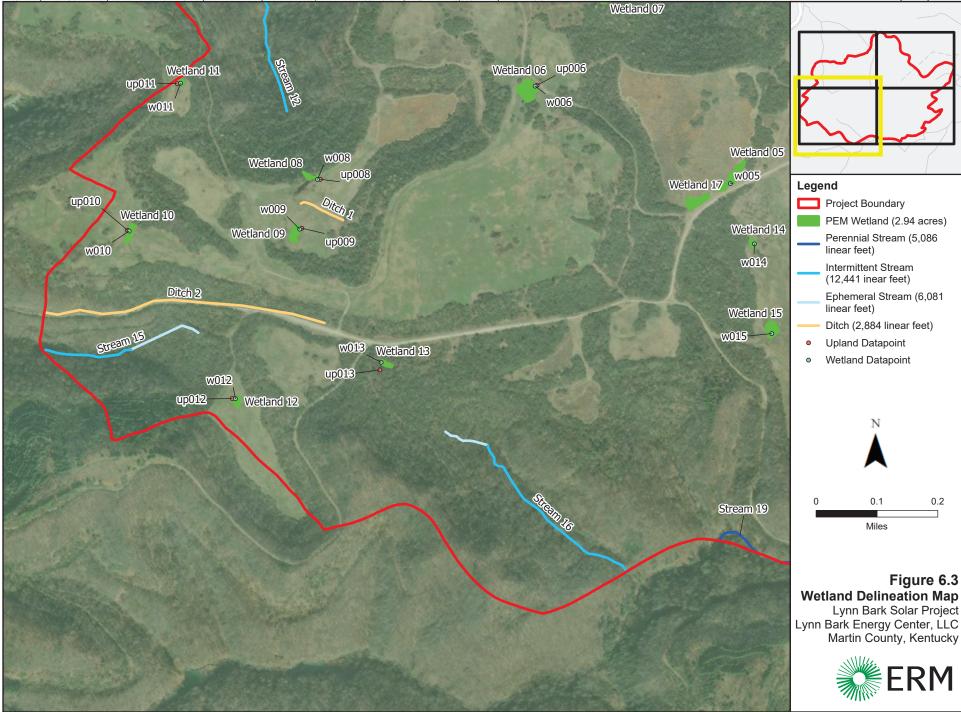
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Source: ESRI World Imagery (Map Service) NAD 1983 StatePlane Kentucky South FIPS 1602 Feet

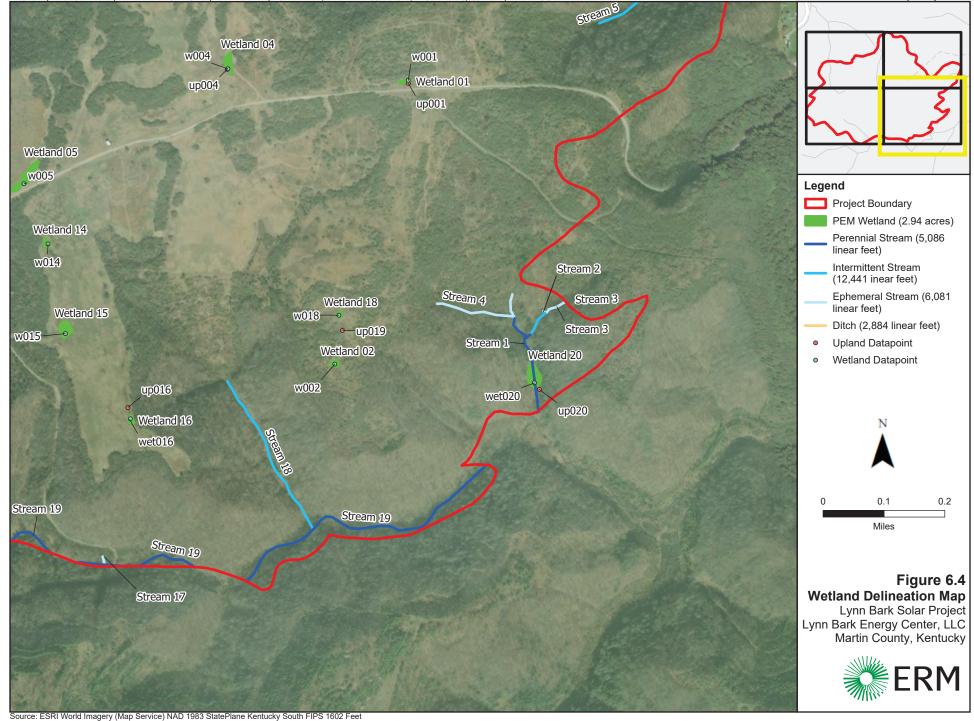
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#### Drawn By: Casey.Brotman



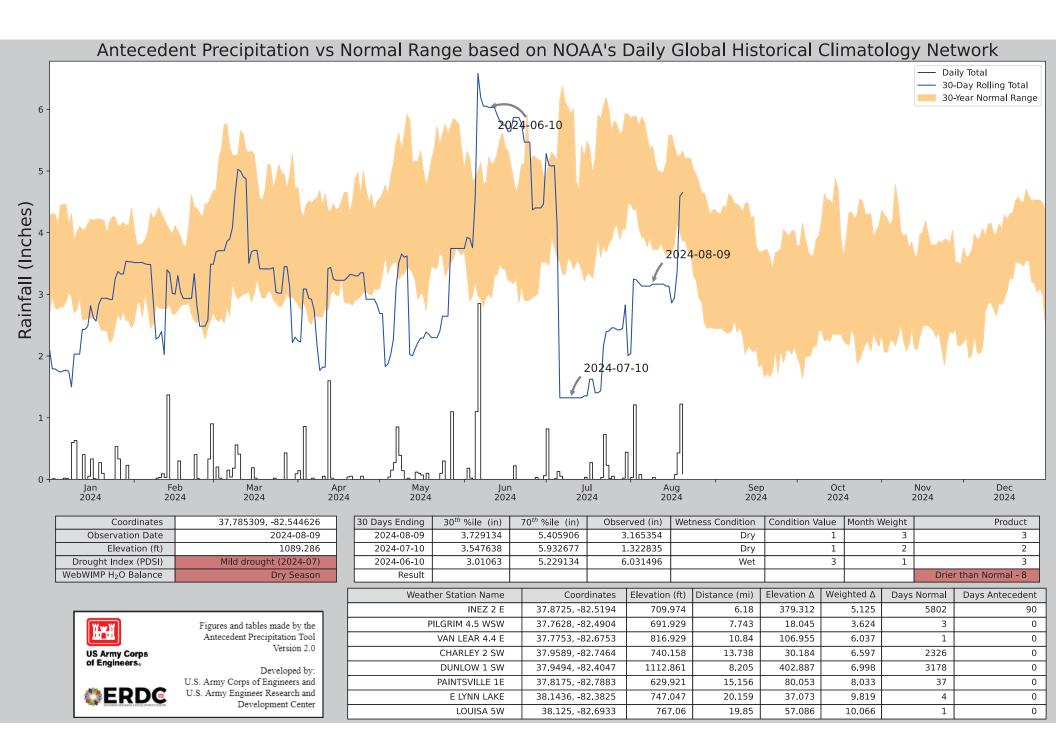
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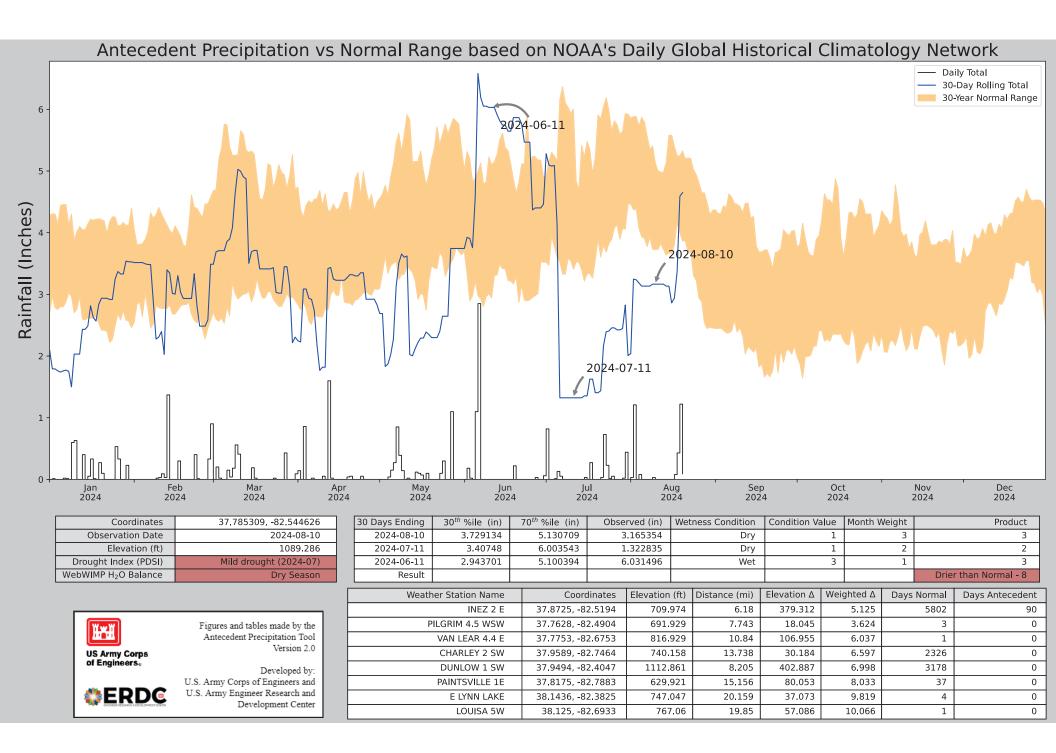


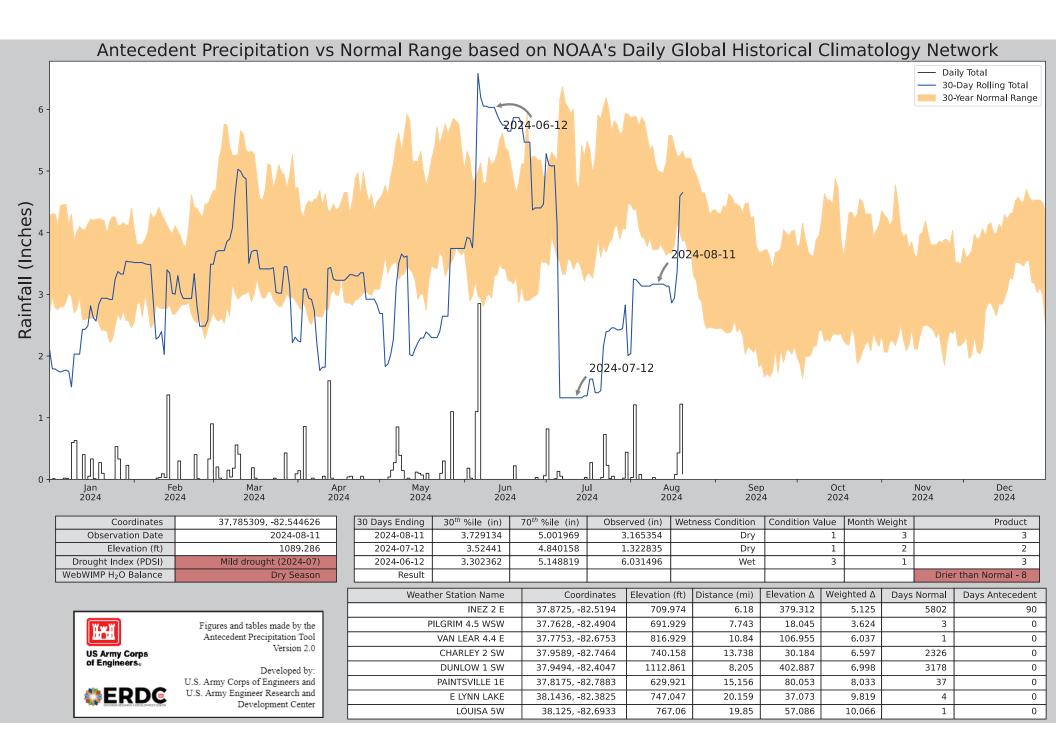




## APPENDIX B APT RESULTS









## APPENDIX C PHOTOLOG

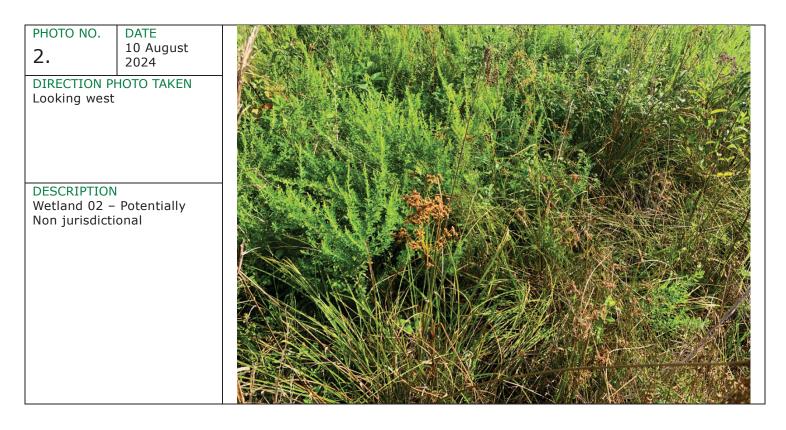


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

рното NO. <b>1.</b>	DATE 09 August	
±.	2024	
DIRECTION PH Looking west	HOTO TAKEN	
DESCRIPTION		
Wetland 01 – Potentially Non jurisdictional		





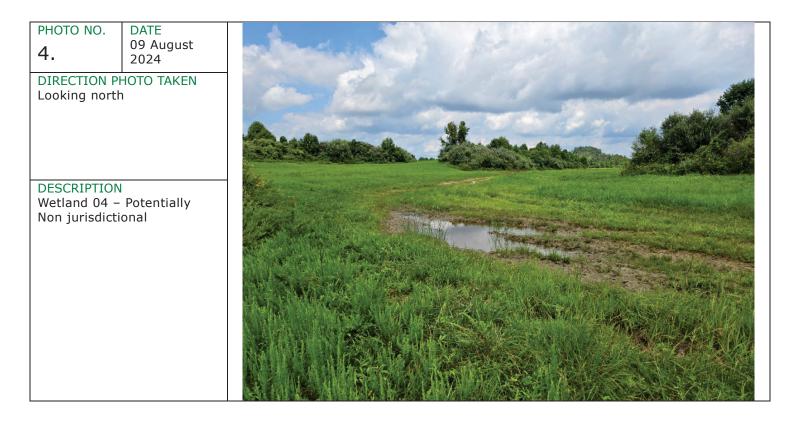


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE	
2	09 August	
3.	2024	
DIRECTION P		
Looking south	least	
DESCRIPTION		
Wetland 03 – Potentially		
Non jurisdicti	onal	





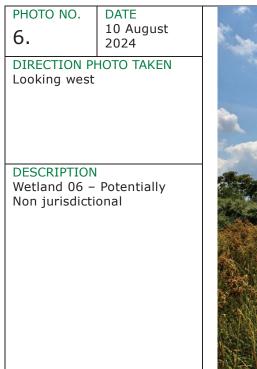


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

-		
PHOTO NO.	DATE	
-	09 August	
5.	2024	
DIRECTION P		
	TOTO TAKEN	
Looking west		
DESCRIPTION		
Wetland 05 – Potentially		
Non jurisdicti	onal	
		0.00







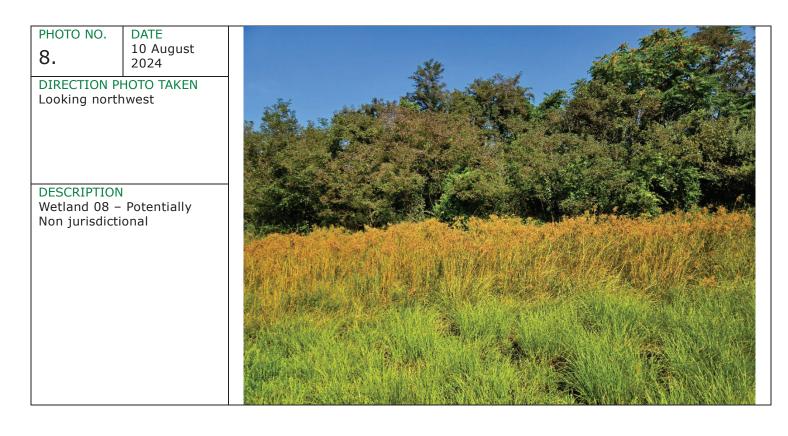


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE 10 August	
7.	2024	
DIRECTION PH Looking south		
		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -
DESCRIPTION		
Wetland 07 – Potentially		
Non jurisdicti	Unai	





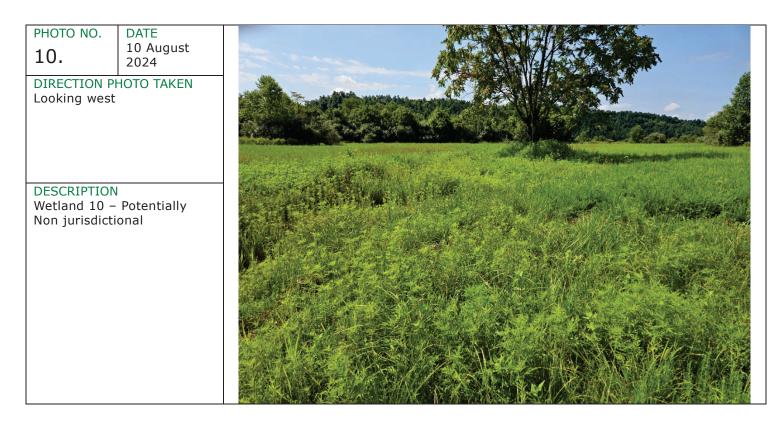


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

рното NO. <b>9.</b>	DATE 10 August 2024
DIRECTION PI Looking south	
DESCRIPTION Wetland 09 – Non jurisdicti	Potentially





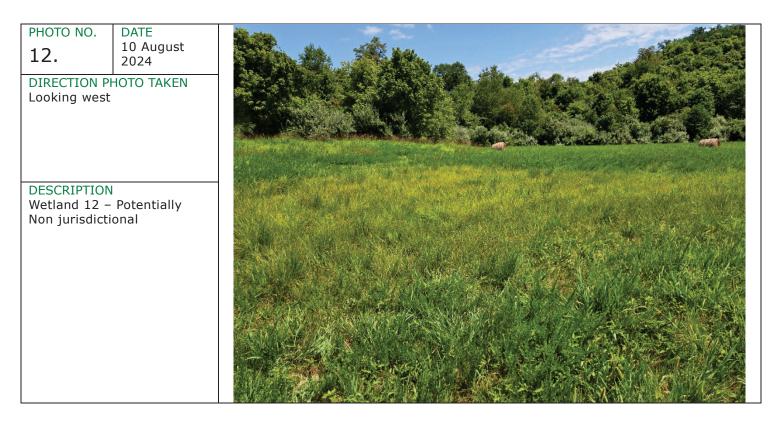


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE		
11.	10 August		
±±.	2024		
DIRECTION PH	HOTO TAKEN		
Looking north			
	-		
DESCRIPTION			
Wetland 11 – Potentially			
Non jurisdictional			





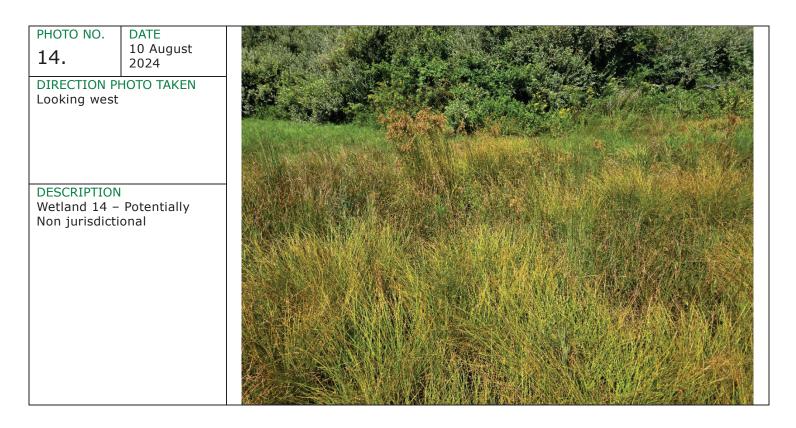


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE	all a
13.	10 August 2024	
DIRECTION PL Looking east	HOTO TAKEN	
DESCRIPTION Wetland 13 – Non jurisdicti	Potentially	





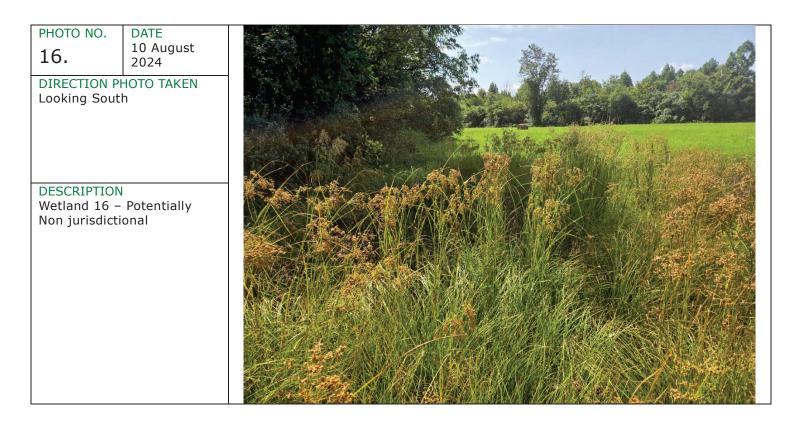


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

рното NO. 15.	DATE 10 August 2024
DIRECTION PI Looking north	
DESCRIPTION Wetland 15 – Non jurisdicti	Potentially





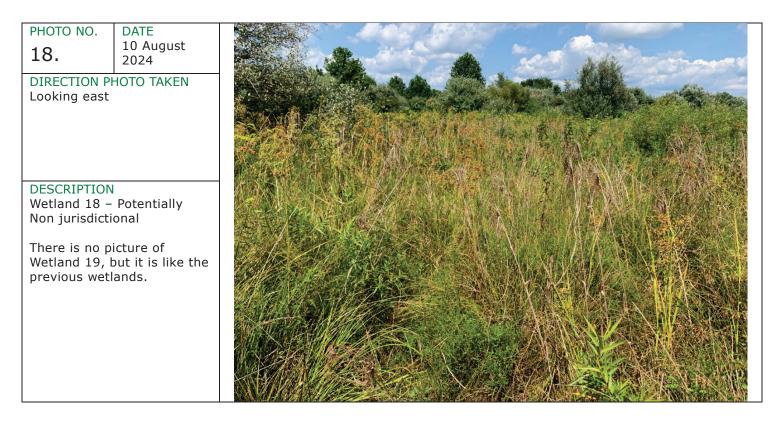


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE	
17.	10 August	
1/.	2024	
DIRECTION PHOTO TAKEN		
Looking south west		
5		
DESCRIPTION		
Wetland 17 – Potentially		
Non jurisdictional		





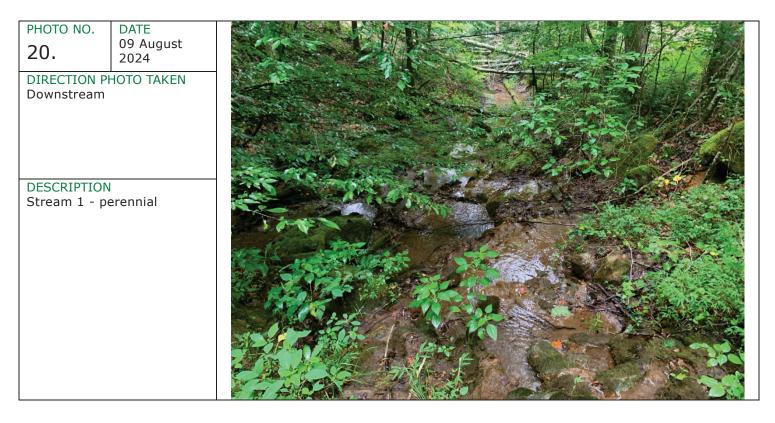


CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE	
19.	09 August 2024	
DIRECTION PI Looking north		
DESCRIPTION Wetland 20 – jurisdictional, 1.		



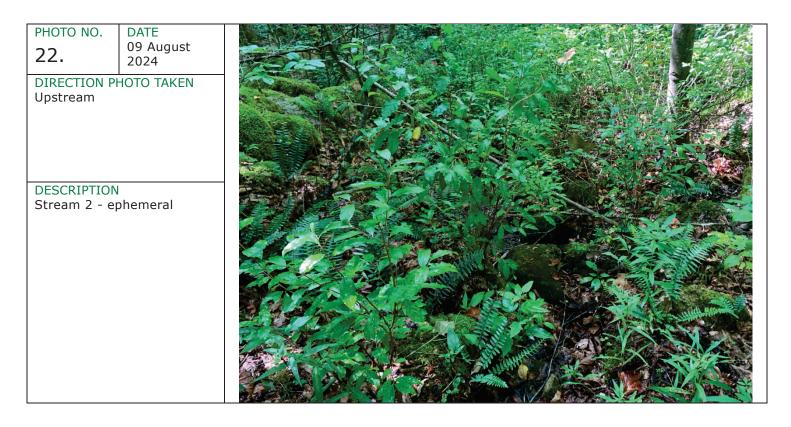




CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

DUIOTO NIC	DATE					
PHOTO NO.	DATE			Part and and	10	
21.	09 August		Select In			
211	2024		and some that	ALL PROPERTY	A for fill a	
DIRECTION P	HOTO TAKEN			- all all -		
Upstream		A Participation of the second second	A start from			
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				The second		
		Summer	A CONTRACTOR OF			97.00
DESCRIPTION	J	Starts Arts	10 A 10	Contraction of the		
Stream 1 - p			A contraction	La n Fr		
		Service and	A Company			the contraction
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			and the same	LA CANES	A A	
		and the sea		CIER CONTRACT		





CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE			< 1/h #1/	
23.	09 August 2024	Jan Cal	We want	and the states	
DIRECTION PH Downstream	IOTO TAKEN	A A A A A A A A A A A A A A A A A A A			
DESCRIPTION Stream 3 – ep intermittent co	hemeral /				

PHOTO NO.	DATE	
24.	09 August 2024	AND A REAL PROPERTY AND A REAL
DIRECTION PH Upstream	IOTO TAKEN	
DESCRIPTION Stream 03 - ir		



CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

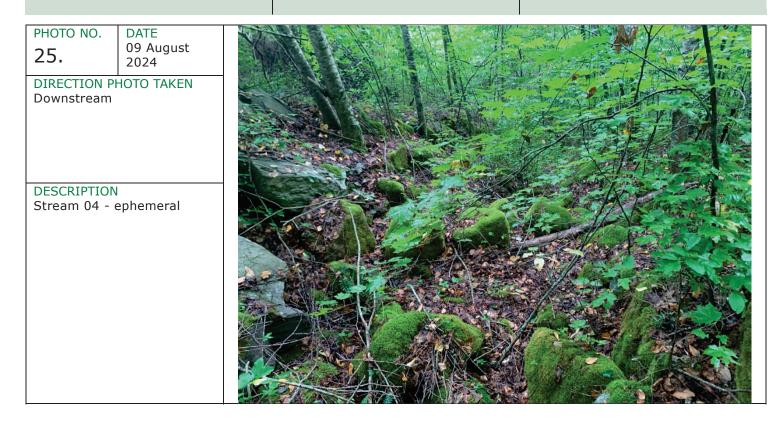


PHOTO NO.	DATE	
26.	09 August 2024	
DIRECTION P Downstream	HOTO TAKEN	
DESCRIPTION Stream 08 – ephemeral st	start of	



CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

				Feature		
PHOTO NO.	DATE		12.23		HALV YE T	
27.	10 August 2024	TRANS.				
DIRECTION P Upstream	HOTO TAKEN					
DESCRIPTION Stream 15 - 6	ephemeral					





CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

PHOTO NO.	DATE	
29.	11 August 2024	
DIRECTION P Downstream		
DESCRIPTION Stream 17 -		

PHOTO NO.	DATE	
30.	11 August 2024	
DIRECTION P Downstream		
DESCRIPTION Stream 19 - flows into du	N perennial as it al pipe culverts	



CLIENT: Lynn Bark Energy Facility

SITE LOCATION: Lynn Bark Solor Project, Martin County, Kentucky

рното NO. <b>31.</b>	DATE 11 August 2024	and the		
DIRECTION P Upstream	HOTO TAKEN			
DESCRIPTION Stream 19 -	N perennial			



## APPENDIX D USACE DATA FORMS

Project/Site:       Lynn Bark Energy Center       City/County: Martin       Sampling Date: 08/102024         Applicant/Owner:       Lynn Bark Energy Center, LLC       State:       KY       Sampling Point       UP001         Investigator(s):       M. Johnson, T. Parish       Section, Township, Range:       NA       Indent/(hild) (index, convex, none):       Convex       Slope (%):       1         Subregion (LRR or MLRA):       ERR N       Leat:       37.792807       Long: 42.535878       Datum:       NADB3         Sold Map Unit Name:       FIG—Flveblock, Fairpoint, and Kaymine soils, 30 to 80 parcent slopes, story       NVI/ classificator:       None         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes       No       (if no, explain in Remarks.)         Are Vegetation       Sold	WETLAND DETERMINATION DATA SHEET - See ERDC/EL TR-12-9; the pro		OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Applicant/Owne::       Lynn Bark Energy Canter, LLC       State:       KY       Sampling Point:       UP001         Investigator(s):       M_obneon, T. Parrish       Section, Township, Range:       MA         Landform (hillside, terrace, etc.):       Rise       Local relief (concave, convex, none):       Convex       Slope (%):       1         Subregion (LRR MILAS):       LRR N       Lat:       37.792807       Long::=25.35878       Datum:       NADB3         Soll Map Unit Name:       FIF—Fiveblock, Fairpoint, and Kaymine solis, 30 to 80 percent slopes, story       NWI classification:       None         Are dignation	Project/Site: Lynn Bark Energy Center	City/County: Marti	in Sampling Date: 08/10/202
Investigator(s):       M.Johnson, T. Parrish       Section, Township, Range:       NA         Landform (hillidig, terrace, etc.):       Rise       Local relife (concave, convex, none):       Convex       Silpe (%):       1         Subregion (LRR or MLRA):       LRR N       Lat:       37.792807       Long:=82.53878       Datum:       NADB3         Subregion (LRR or MLRA):       LRR N       Lat:       37.792807       Long:=82.53878       Datum:       NADB3         Are dimatic / hydrologic conditions on the site typical for this time of year?       Yes       No       M       Are Vegetation       . Soil       . or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.       Hydrophydic Vegetation Present?       Yes       No       X         Hydrophydic Vegetation Present?       Yes       No       X       within a Wetland?       Yes       No       X         Wetland Hydrology Indicators:       Yes       No       X       within a Wetland?       Yes       No       X         Wetland Hydrology Indicators:       Yes       No       X       Surface Soil Cracks (Bi)       Surface Soil Cracks (Bi)       Surface Soil Cracks (Bi)       Surface Soil Cracks (Bi)       Dre			
Landrorm (hillside, terrace, etc.):       Rise       Local relief (concave, corrvex, none):       Corrvex       Slope (%):       1         Subregion (LRR or MLRA):       LRR N       Lat:       37.792807       Lorg:-82.535878       Datum:       NADB3         Soil Map Unit Name:       FIF—Fiveblock, Fairpoint, and Kaymine soils, 30 to 80 percent slopes, stony       NWI classification:       None         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes, X       No (fr.e., explain in Remarks.)         Are Vegetation       , Soil, or Hydrology naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.       Is the sampled Area within a Wetland?       Yes			
Subregion (LRR or MLRA):       LRR N       Lat:       37.792807       Long:-82.535878       Datum:       NADB3         Soil Map Unit Name:       FIF—Fiveblock, Fairpoint, and Kaymine soils, 30 to 80 percent slopes, stomy       NWI classification:       None         Are dimatic / hydrologic conditions on the sile typical for this time of year?       Yes_X       No			
Soil Map Unit Name:       FIF—Fiveblock, Fairpoint, and Kaymine soils, 30 to 80 percent slopes, stony       NWI classification:       Nome         Are direatic / hydrologic conditions on the site typical for this time of year?       Yes       No       (If no, explain in Remarks.)         Are Vegetation       _, Soil       _, or Hydrology       inglificantly disturbed?       Are "Normal Circumstances" present?       Yes	Landform (hillside, terrace, etc.): Rise		vex, none): Convex Slope (%): 1
Are climatic / hydrologic conditions on the site typical for this time of year?       Yes X       No (If no, explain in Remarks.)         Are Vegetation       , Soil       x or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes X       No         Are Vegetation       , Soil       , or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No X       Is the Sampled Area within a Wetland?       Yes No X         Wetland Hydrology Present?       Yes       No X       Is the Sampled Area within a Wetland?       Yes No X         Upland point associated with Wetland-001. The gravel layer is present due to the past surface coal mine and reclaimation proecces.       Surface Soil Cracks (B6)         Surface Water (A1)       True Aquatic Plants (B14)       Drainage Patterns (B10)       Drainage Patterns (B10)         Surface Water (A1)       Presence of Reduced Iron (C4)       Drainage Patterns (B16)       Dry-Season Water Table (C2)         Surface Water (A1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)       Cary-Season Water Table (C2)         Saturation (A3)       Oxidica Watace (C7)       Saturation Visible on Aerial Imagery (C9)       Saturation Visible on Aerial Imagery	· · · ·		J
Are Vegetation	Soil Map Unit Name: FiF—Fiveblock, Fairpoint, and	Kaymine soils, 30 to 80 percent slopes, st	tony NWI classification: None
Are Vegetation	Are climatic / hydrologic conditions on the site typical	for this time of year? Yes	X No (If no, explain in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No X         Wetland Hydrology Present?       Yes       No X         Wetland Hydrology Present?       Yes       No X         Remarks:       Upland point associated with Wetland-001. The gravel layer is present due to the past surface coal mine and reclaimation proecces.         HYDROLOGY         Wetland Hydrology Indicators:       Secondary Indicators (minimum of two required)         Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         Saturation (A3)       Oxid/azed Rhizospheres on Living Roots (C3)         Water Marks (B1)       Presence of Reduced Iron (C4)         Saturation (A3)       Oxid/azed Rhizospheres on Living Roots (C3)         Drift Deposits (B2)       Recent Iron Reduction in Tilled Solis (C6)         Drift Deposits (B3)       Thin Muck Surface (C7)         Aquatio Flanta (B13)       Staturation Visible on Aerial Imagery (B7)         Hoad Water Stained Leaves (B9)       Geomorphic Position (D2)         Aquatio Fresent?       Yes       No X         Depth (inches):       Wetland Hydrology Present?       Yes       No X         Water Table Present?       Yes	Are Vegetation, SoilX, or Hydrology	significantly disturbed? Are "Norn	mal Circumstances" present? Yes X No
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         Hydrophytic Vegetation Present?       Yes       No X         Wetland Hydrology Present?       Yes       No X         Wetland Hydrology Present?       Yes       No X         Remarks:       Upland point associated with Wetland-001. The gravel layer is present due to the past surface coal mine and reclaimation proecces.         HYDROLOGY         Wetland Hydrology Indicators:       Secondary Indicators (minimum of two required)         Surface Water (A1)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)         Saturation (A3)       Oxid/azed Rhizospheres on Living Roots (C3)         Water Marks (B1)       Presence of Reduced Iron (C4)         Saturation (A3)       Oxid/azed Rhizospheres on Living Roots (C3)         Drift Deposits (B2)       Recent Iron Reduction in Tilled Solis (C6)         Drift Deposits (B3)       Thin Muck Surface (C7)         Aquatio Flanta (B13)       Staturation Visible on Aerial Imagery (B7)         Hoad Water Stained Leaves (B9)       Geomorphic Position (D2)         Aquatio Fresent?       Yes       No X         Depth (inches):       Wetland Hydrology Present?       Yes       No X         Water Table Present?       Yes	Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed	d, explain any answers in Remarks.)
Hydric Soil Present?       Yes       No       X       within a Wetland?       Yes       No       X         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Upland point associated with Wetland-001. The gravel layer is present due to the past surface coal mine and reclaimation proecces.         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       True Aquatic Plants (B14)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Hydrogen Sulfde Odor (C1)       Drianage Patterns (B10)         Saturation (X3)       Oxidized Rhizospheres on Living Roots (C3)       Moss Trin Lines (B16)         Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Sturtation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Sturtation Visible on Aerial Imagery (B7)         Inrundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)       Sturted or Stressed Plants (D1)         Meter Table Present? <td>SUMMARY OF FINDINGS – Attach site r</td> <td>nap showing sampling point loc</td> <td>cations, transects, important features, etc.</td>	SUMMARY OF FINDINGS – Attach site r	nap showing sampling point loc	cations, transects, important features, etc.
Upland point associated with Wetland-001. The gravel layer is present due to the past surface coal mine and reclaimation proecces.         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       True Aquatic Plants (B14)         Starface Water (A1)       Oxidized Rhizospheres on Living Roots (C3)         Water Marks (B1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)         Drift Deposits (B3)       Thin Muck Surface (C7)         Algal Mat or Crust (B4)       Other (Explain in Remarks)         Inundation Visible on Aerial Imagery (B7)       Geomorphic Position (D2)         Water Fauna (B13)       Present?         Field Observations:       No         Surface Water Present?       Yes         No       X         Depth (inches):       Wetland Hydrology Present?         Yes       No         Depth (inches):       Wetland Hydrology Present?         Yes       No         X       Depth (inches):         Water Table Present?       Yes         No       X         Depth (inches):       Wetland Hydrology Present?         Yes	Hydric Soil Present? Yes	No X within a Wetland?	
Surface Water (A1)       True Aquatic Plants (B14)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)       Drainage Patterns (B10)         Saturation (A3)       Oxidized Rhizospheres on Living Roots (C3)       Moss Trim Lines (B16)         Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B3)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       No       Z         Surface Water Present?       Yes       No         No       Z       Depth (inches):         Saturation Present?       Yes       No         No       X       Depth (inches):       Wetland Hydrology Present?       Yes       No         Saturation Present?       Yes       No       X			Secondary Indicators (minimum of two required)
High Water Table (A2)       Hydrogen Sulfide Odor (C1)       Drainage Patterns (B10)         Saturation (A3)       Oxidized Rhizospheres on Living Roots (C3)       Moss Trim Lines (B16)         Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water Table Present?       Yes       No         X       Depth (inches):       Wetland Hydrology Present?         Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X         Obscribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Yes       No	Primary Indicators (minimum of one is required; che	ck all that apply)	Surface Soil Cracks (B6)
Saturation (A3)       Oxidized Rhizospheres on Living Roots (C3)       Moss Trim Lines (B16)         Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       No         Surface Water Present?       Yes         No       X         Quincles capillary fringe)       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       No         Surface Water Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes       No         X       Depth (inches):       Wetland Hydrology Present?       Yes       No         Z       Includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Previous inspections), if available:			
Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       No         Surface Water Present?       Yes         No       X         Quincludes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       Sturation Present?         Surface Water Present?       Yes         No       X       Depth (inches):         Water Table Present?       Yes       No         X       Depth (inches):       Wetland Hydrology Present?         Yes       No       X       Depth (inches):         Cincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Geomorphic Position (D2)         Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       Surface Water Present?         Surface Water Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes       No         X       Depth (inches):       Wetland Hydrology Present?         Yes       No       X         Depth (inches):       Ves       No         X       Depth (inches):       Ves         Saturation Present?       Yes       No         X       Depth (inches):       Ves         Describe Recorded Data (stream gauge, monitoring well, aeria			
Inundation Visible on Aerial Imagery (B7)       Shallow Aquitard (D3)         Water-Stained Leaves (B9)       Microtopographic Relief (D4)         Aquatic Fauna (B13)       FAC-Neutral Test (D5)         Field Observations:       Surface Water Present? Yes         Surface Water Present? Yes       No X       Depth (inches):         Water Table Present? Yes       No X       Depth (inches):         Saturation Present? Yes       No X       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Drift Deposits (B3)		Saturation Visible on Aerial Imagery (C9)
Water-Stained Leaves (B9)		, ,	
Aquatic Fauna (B13)	Algal Mat or Crust (B4) O Iron Deposits (B5)	, ,	Stunted or Stressed Plants (D1)
Field Observations:         Surface Water Present?       Yes       No       X       Depth (inches):	Algal Mat or Crust (B4) O Iron Deposits (B5)	, ,	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water Present?       Yes       No X       Depth (inches):         Water Table Present?       Yes       No X       Depth (inches):         Saturation Present?       Yes       No X       Depth (inches):         (includes capillary fringe)       Ves       No X       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Ves	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	, ,	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?       Yes       No       X         Saturation Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?       Yes       No       X         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Ves       No       X	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	, ,	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Saturation Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?       Yes       No       X         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Ves       No       X	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	ther (Explain in Remarks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No	ther (Explain in Remarks)           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Remarks:	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe)	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) No X
Remarks:	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe)	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) No X
	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) No X
	Algal Mat or Crust (B4) O Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	ther (Explain in Remarks)           X         Depth (inches):           X         Depth (inches):           X         Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) No X

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test wo	rksheet:		
				Number of Dominant	Species		
				That Are OBL, FACW	/, or FAC:	0	(A)
				Total Number of Dom	uinant		_
	_			Species Across All S		1	(B)
							<b>_</b> ` ′
				Percent of Dominant That Are OBL, FACW		0.0%	(A/
						0.0 /0	_(/~/)
				Prevalence Index w			
		=Total Cover		Total % Cover of		ultiply by:	
50% of total cover:	20%	of total cover:		OBL species	0 x 1 =	0	
pling/Shrub Stratum (Plot size: 15	)			FACW species	0 x 2 =	0	
				FAC species	5 x 3 =	15	
				FACU species	85 x 4 =	340	
				UPL species	5 x 5 =	25	
				· · ·	95 (A)	380	
					Index = $B/A =$	4.00	
						4.00	
				Hydrophytic Vegeta			
				1 - Rapid Test fo	r Hydrophytic Ve	getation	
				2 - Dominance T	est is >50%		
				3 - Prevalence In	idex is ≤3.0 <sup>1</sup>		
	:	=Total Cover		4 - Morphologica	I Adaptations <sup>1</sup> (P	rovide sup	porti
50% of total cover:	20%	of total cover:		data in Remar	ks or on a separ	ate sheet)	
erb Stratum (Plot size: 5 )				Problematic Hyd	rophytic Vegetati	on <sup>1</sup> (Expla	ain)
Lespedeza cuneata	65	Yes	FACU				
	10	No	FACU	<sup>1</sup> Indicators of hydric s present, unless distu		, ,,	must
Solidago altissima							
Ambrosia trifida	5	No	FAC	Definitions of Four	vegetation Strat	a:	
Daucus carota	5	No	UPL	Tree – Woody plants			
Cirsium vulgare	10	No	FACU	more in diameter at b	oreast height (DB	H), regard	lless
				height.			
				Sapling/Shrub - Wo	odv plants exclu	dina vines	s les
				than 3 in. DBH and g			
				m) tall.			
				Herb – All herbaceou	ie (non woodu) ~	ante roca	ardler
·				of size, and woody pl	( 271	, 0	nules
				, , , , , , , , , , , , , , , , , , , ,			
		=Total Cover		Woody Vine – All wo	ody vines greate	r than 3.28	8 ft ir
50% of total cover:	48 20%	of total cover:	19	height.			
body Vine Stratum (Plot size: 30	)						
				Hydrophytic			
		=Total Cover		Vegetation			
				vegetation			
50% of total cover:		of total cover:			s No	Х	

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Sampling Point: UP001
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oth Matrix	o the depth r		<b>nent the indicat</b> x Features	or or con	firm the absence of	indicators.)	
ches) Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	marks
0-5 2.5YR 4/2	100				Loamy/Clayey		sandy loam
					Loanty, orayey		Sandy Ioann
pe: C=Concentration, D=Deple	etion. RM=Re	duced Matrix. M	S=Masked Sand	Grains.	<sup>2</sup> Location	n: PL=Pore Lining, I	M=Matrix.
dric Soil Indicators:	,	,		-		cators for Problem	
Histosol (A1)		Polyvalue Be	low Surface (S8	) (MLRA 1		2 cm Muck (A10) (N	
Histic Epipedon (A2)	-		urface (S9) (MLR	-		Coast Prairie Redox	-
Black Histic (A3)	-		y Mineral (F1) <b>(N</b>	ILRA 136		(MLRA 147, 148)	
Hydrogen Sulfide (A4)	-		ed Matrix (F2)			Piedmont Floodplair	. ,
Stratified Layers (A5) 2 cm Muck (A10) <b>(LRR N)</b>	-	Depleted Ma Redox Dark \$				(MLRA 136, 147) Red Parent Material	
Depleted Below Dark Surface	(A11)		rk Surface (F7)			(outside MLRA 1	
Thick Dark Surface (A12)		Redox Depre				Very Shallow Dark S	
Sandy Mucky Mineral (S1)	-	Iron-Mangan	ese Masses (F1	2) (LRR N	,	Other (Explain in Re	emarks)
Sandy Gleyed Matrix (S4)	-	MLRA 136	5)				
Sandy Redox (S5)	-		ice (F13) <b>(MLRA</b>			icators of hydrophyti	
Stripped Matrix (S6)	-		odplain Soils (F	<i>,</i> ,		wetland hydrology n	-
Dark Surface (S7)		Red Parent N	/laterial (F21) <b>(M</b>	LRA 127,	147, 148)	unless disturbed or	problematic.
strictive Layer (if observed):	vol						
Type: Grav Depth (inches):	7ei 5				Hydric Soil Pres	ent? Yes	No X
marks: fusal at 5 inches from a gravel	layer, due to	the site's previou	us operations of	surface co	al mining.		

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; t		ains and Piedmont Re	gion Requireme	#: 0710-0024, Exp:11/30/2024 nt Control Symbol EXEMPT: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County: Martin		Sampling Date: 08/10/2024
Applicant/Owner: Lynn Bark Energy Cer	nter IIC		State: KY	Sampling Point: UP003
<u> </u>		Section Tourship Dan		
Investigator(s): <u>M. Johnson, T. Parrish</u>		Section, Township, Ran		01
Landform (hillside, terrace, etc.): Rise		ocal relief (concave, conve		Slope (%): 1
Subregion (LRR or MLRA): LRR N	Lat: 37.795		g: <u>-82.543013</u>	Datum: NAD83
Soil Map Unit Name: FiD - Fiveblock, Fairpo	pint, and Kaymine soils, 6 t	to 30 percent slopes, ston	y NWI classifie	cation: None
Are climatic / hydrologic conditions on the site	e typical for this time of yea	ar? Yes <u>X</u>	No (If no	, explain in Remarks.)
Are Vegetation, SoilX_, or Hydro	ology significantly d	isturbed? Are "Norma	al Circumstances" presen	t? Yes X No
Are Vegetation, Soil, or Hydro	ology naturally prob	lematic? (If needed,	explain any answers in F	Remarks.)
SUMMARY OF FINDINGS – Attach			ations, transects, in	nportant features, etc.
	5		,	
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area		
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	<u>No X</u>
Wetland Hydrology Present?	Yes No X			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicator	s (minimum of two required)
Primary Indicators (minimum of one is requi	red; check all that apply)		Surface Soil Cra	acks (B6)
Surface Water (A1)	True Aquatic Plants			ated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		Drainage Patter	
Saturation (A3)		res on Living Roots (C3)	Moss Trim Lines	. ,
Water Marks (B1)	Presence of Reduce	on in Tilled Soils (C6)	Dry-Season Wa	. ,
Sediment Deposits (B2) Drift Deposits (B3)	Thin Muck Surface (	( )	Crayfish Burrow	s (Co) le on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re			ssed Plants (D1)
Iron Deposits (B5)			Geomorphic Po	
Inundation Visible on Aerial Imagery (B	7)		Shallow Aquitar	
Water-Stained Leaves (B9)			Microtopograph	ic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Te	st (D5)
Field Observations:				
Surface Water Present? Yes	No X Depth (incl	nes):		
Water Table Present? Yes		nes):		
Saturation Present? Yes	No X Depth (incl	Nes): Wetlan	nd Hydrology Present?	Yes No X
(includes capillary fringe)				
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	s, previous inspections), if	available:	
Remarks:				

Tree Stratum (Plot size: 30 )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:		
1. 2.				Number of Domin That Are OBL, FA	•	0	(A)
3 4				Total Number of I Species Across A		1	(B)
5 6				Percent of Domin That Are OBL, FA		0.0	<u>% (</u> A/I
7				Prevalence Inde	x worksheet:		
	=	Total Cover		Total % Cov	/er of:	Multipl	ly by:
50% of total cover:	20%	of total cover:		OBL species		x 1 =	0
Sapling/Shrub Stratum (Plot size: 15	)			FACW species		x 2 =	0
1. Lespedeza cuneata	60	Yes	FACU	FAC species	0	x 3 =	0
2. Solidago altissima	10	No	FACU	FACU species	70	x 4 =	280
3. Rubus occidentalis	10	No	UPL	UPL species	10	x 5 =	50
4				Column Totals:	80 (A	.)	330 (
5				Prevaler	nce Index = B/	/A =	4.13
ð.				Hydrophytic Veg	etation Indica	tors:	
7.				1 - Rapid Tes	t for Hydrophy	tic Vegetat	tion
3.				2 - Dominand	e Test is >50%	6	
9.				3 - Prevalenc	e Index is ≤3.0	) <sup>1</sup>	
				·			
	80 =	=Total Cover		4 - Morpholog	nical Adaptatio	ns <sup>1</sup> (Provid	le supportii
50% of total cover:		Total Cover	16	· · ·	gical Adaptation marks or on a s		
50% of total cover:		Total Cover of total cover:	16	data in Re	marks or on a	separate s	heet)
Herb Stratum (Plot size: 5 )			16	data in Re	marks or on a s Hydrophytic Ve	separate sleegetation <sup>1</sup> (	heet) Explain)
Herb Stratum (Plot size: 5 ) 1.			16	data in Re	marks or on a s Hydrophytic Ve ric soil and wet	separate sl egetation <sup>1</sup> ( tland hydro	heet) Explain)
Herb Stratum (Plot size: 5) 1 2			16	data in Rei Problematic H	marks or on a s Hydrophytic Ve ric soil and wet isturbed or prol	separate sl getation <sup>1</sup> ( tland hydro blematic.	heet) Explain)
Herb Stratum         (Plot size:5)           1.			16	data in Re Problematic H <sup>1</sup> Indicators of hyd present, unless di	marks or on a s Hydrophytic Ve ric soil and wet isturbed or prol our Vegetation ants, excluding	separate sl getation <sup>1</sup> ( tland hydro blematic. strata: vines, 3 in	heet) Explain) blogy must
Herb Stratum     (Plot size:5)       1.	<u>40</u> 20%			data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter	Hydrophytic Ve ric soil and wel isturbed or prol nur Vegetation ants, excluding at breast heigh Woody plants,	separate si getation <sup>1</sup> ( tland hydro blematic. <b>strata:</b> vines, 3 in nt (DBH), ro , excluding	heet) Explain) ology must n. (7.6 cm) egardless of vines, less
Herb Stratum       (Plot size:5)         1.	<u>40</u> 20%			data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar	Hydrophytic Ve ric soil and wel isturbed or pro- bur Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-woo	separate sl ggetation <sup>1</sup> ( tland hydro blematic. <b>Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to ody) plants	heet) Explain) blogy must n. (7.6 cm) egardless of vines, less o 3.28 ft , regardless
Herb Stratum       (Plot size:5)         1.	40 20%			data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbace	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size: 5 )         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless b 3.28 ft , regardless tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless b 3.28 ft , regardless tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless b 3.28 ft , regardless tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must n. (7.6 cm) egardless o vines, less o 3.28 ft , regardles tall.
Herb Stratum       (Plot size:5)         1.	40 20%	of total cover:		data in Rei Problematic H <sup>1</sup> Indicators of hyd present, unless di <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al height.	Hydrophytic Ve ric soil and wel isturbed or prol our Vegetation ants, excluding at breast heigh Woody plants, ad greater than eeous (non-wood y plants less th	separate si getation <sup>1</sup> ( tland hydro blematic. <b>1 Strata:</b> vines, 3 in nt (DBH), ro , excluding or equal to bdy) plants nan 3.28 ft	heet) Explain) blogy must l n. (7.6 cm) d egardless c vines, less o 3.28 ft , regardless tall.

## VEGETATION (Four Strata) - Use scientific names of plants.

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Sampling Point: UP003
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	-	o the depth	n needed to docu		tor or con	firm the absend	ce of indicate	ors.)	
epth nches)	Matrix Color (moist)	%	Color (moist)	ox Features % Type	Loc <sup>2</sup>	Texture		Rem	narks
		70		<u></u>		Texture		Ren	
0-6	10YR 4/3	100				Loamy/Claye	ey	sandy loan	n
vpe: C=Concer	ntration, D=Deple	etion, RM=F	Reduced Matrix, N	//S=Masked Sand	d Grains.	2Loc	cation: PL=P	ore Lining, N	/I=Matrix.
ydric Soil Indic	ators:								atic Hydric Soil
Histosol (A1)			Polyvalue E	Below Surface (St	B) <b>(MLRA</b> 1			uck (A10) <b>(M</b>	
Histic Epipede	on (A2)		Thin Dark S	Surface (S9) (MLI	RA 147, 14	.8)	Coast P	rairie Redox	(A16)
Black Histic (/	A3)		Loamy Muc	ky Mineral (F1) <b>(</b>	MLRA 136	)	(MLR/	A 147, 148)	
Hydrogen Sul	lfide (A4)		Loamy Gle	yed Matrix (F2)			Piedmor	nt Floodplain	Soils (F19)
Stratified Laye	ers (A5)		Depleted N	latrix (F3)			(MLR/	A 136, 147)	
2 cm Muck (A	A10) <b>(LRR N)</b>		Redox Darl	k Surface (F6)			Red Par	ent Material	(F21)
Depleted Belo	ow Dark Surface	(A11)	Depleted D	ark Surface (F7)			(outsi	de MLRA 12	27, 147, 148)
Thick Dark Su	urface (A12)		Redox Dep	ressions (F8)			Very Sh	allow Dark S	urface (F22)
Sandy Mucky	/ Mineral (S1)		Iron-Manga	inese Masses (F	2) (LRR N	,	Other (E	Explain in Re	marks)
Sandy Gleyed	d Matrix (S4)		MLRA 13	36)					
Sandy Redox	: (S5)		Umbric Sur	face (F13) <b>(MLR</b> /	A 122, 136	)	<sup>3</sup> Indicators o	f hydrophytic	vegetation and
Stripped Matr	rix (S6)		Piedmont F	loodplain Soils (F	19) <b>(MLR/</b>	A 148)	wetland	hydrology m	ust be present,
Dark Surface	(S7)		Red Parent	Material (F21) <b>(</b>	/ILRA 127,	147, 148)	unless d	listurbed or p	problematic.
ostrictivo Lavo	r (if observed):								
estitute Layer									
-	Grav	/el							
Type: Depth (inches	Grav	/el 6				Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	Il mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	Il mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	I mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	Il mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	I mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	I mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	I mine.	Hydric Soil F	Present?	Yes	<u>No X</u>
Type: Depth (inches emarks:	Grav 5):	6	revious operation	as a surface coa	I mine.	Hydric Soil F	Present?	Yes	<u>No X</u>

U.S. Army WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; th		ains and Piedmont Reg	gion Requireme	l #: 0710-0024, Exp:11/30/2024 nt Control Symbol EXEMPT: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County: Martin		Sampling Date: 08/10/2024
Applicant/Owner: Lynn Bark Energy Cen	ter, LLC		State: KY	Sampling Point: UP004
Investigator(s): M. Johnson, T. Parrish		Section, Township, Rang	ae: N/A	
Landform (hillside, terrace, etc.): Rise	l c	ocal relief (concave, conve		Slope (%): 1
			· · · ·	
Subregion (LRR or MLRA): LRR N	Lat: <u>37.793</u>		g: <u>-82.541303</u>	Datum: NAD83
Soil Map Unit Name: FiD - Fiveblock, Fairpo	int, and Kaymine soils, 6 t	to 30 percent slopes, stony	/ NWI classifie	cation: None
Are climatic / hydrologic conditions on the site	e typical for this time of yea	ar? Yes <u>X</u>	No (If no	, explain in Remarks.)
Are Vegetation, SoilX_, or Hydro	logysignificantly di	isturbed? Are "Norma	I Circumstances" presen	t? Yes X No
Are Vegetation, Soil, or Hydro	logy naturally prob	lematic? (If needed,	explain any answers in F	Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing	sampling point loca	tions, transects, ir	nportant features, etc.
	· · · ·			-
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area	Vac	No V
Hydric Soil Present?	Yes X No	within a Wetland?	Yes	<u>No X</u>
Wetland Hydrology Present? Remarks:	Yes <u>No X</u>			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicator	s (minimum of two required)
Primary Indicators (minimum of one is requir	ed; check all that apply)		Surface Soil Cra	acks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegeta	ated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Oo		Drainage Patter	
Saturation (A3)		res on Living Roots (C3)	Moss Trim Line	
Water Marks (B1)	Presence of Reduce		Dry-Season Wa	
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Burrow	
Drift Deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface ( Other (Explain in Re			le on Aerial Imagery (C9) ssed Plants (D1)
Iron Deposits (B5)			Geomorphic Po	
Inundation Visible on Aerial Imagery (B7	·)		Shallow Aquitar	
Water-Stained Leaves (B9)	/		Microtopograph	
Aquatic Fauna (B13)			X FAC-Neutral Te	
Field Observations:				
Surface Water Present? Yes	No X Depth (inch	nes):		
Water Table Present? Yes		nes):		
Saturation Present? Yes	No X Depth (inch	nes): Wetlan	d Hydrology Present?	Yes No X
(includes capillary fringe)				
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos	, previous inspections), if	available:	
Remarks:				

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test	worksheet:		
				Number of Domina	ant Species		
				That Are OBL, FA	CW, or FAC:	0	(A)
				Total Number of D	)ominant		
				Species Across A		1	(B)
				Demonst of Demin			_ ` `
				Percent of Domina That Are OBL, FA		0.0%	(A/
				Prevalence Index		0.070	
		=Total Cover		Total % Cov		Multiply by	<i>r</i> .
50% of total cover:	20%	of total cover:		OBL species		1 = 10	
pling/Shrub Stratum (Plot size: 15	)			FACW species		2 = 0	
				FAC species	10 x	3 = 30	
				FACU species	65 x	4 =260	)
				UPL species	0 x	5 = 0	
				Column Totals:	85 (A)	300	0
				Prevalen	ce Index = B/A	. = 3.53	
				Hydrophytic Veg	etation Indicat	ors:	
					t for Hydrophyti		
				· ·	e Test is >50%	5	
					e Index is $\leq 3.0^{1}$		
					ical Adaptation		unnarti
		=Total Cover		· · · ·	narks or on a s		
50% of total cover:	20%	of total cover:					,
erb Stratum (Plot size: 5 )				Problematic H	lydrophytic Veg	etation <sup>1</sup> (Expl	lain)
Lespedeza cuneata	55	Yes	FACU	<sup>1</sup> Indicators of hydr	ic soil and wetla	and hydrology	/ must
Lotus corniculatus	10	No	FACU	present, unless dis	sturbed or prob	lematic.	
Carex vulpinoidea	10	No	OBL	Definitions of Fo	ur Vegetation	Strata:	
Ambrosia trifida	10	No	FAC	Tree – Woody pla	nts. excludina v	/ines. 3 in. (7.	.6 cm)
				more in diameter			
				height.			
				Sepling/Shrub	Maady planta	ميرمان طائم مريامه	
				Sapling/Shrub – than 3 in. DBH an			
				m) tall.	a groutor than t		.0 10
l				Herb – All herback of size, and woody			
·				or size, and woody	piants less the	an 3.20 it tall.	
	85	=Total Cover		Woody Vine – All	woody vines g	reater than 3.2	28 ft ir
50% of total cover:	43 20%	of total cover:	17	height.			
<u>voody Vine Stratum</u> (Plot size: 30)							
				Hydrophytic			
	:	=Total Cover		Vegetation	Yes		

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Sampling Point: UP004
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Depth       Matrix       Redox Features         (inches)       Color (moist)       %       Type¹       Loc²       Texture       Rema         0-6       5YR 4/1       95       2.5YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       5YR 4/1       95       2.5YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       5YR 4/1       95       2.5YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       5YR 4/1       95       2.5YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       5YR 4/1       95       2.5YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-7	arks
0-6         5YR 4/1         95         2.5YR 4/6         5         C         M         Loamy/Clayey         sandy loam	arks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=	
lydric Soil Indicators: Indicators for Problemati	
Histosol (A1) Polyvalue Below Surface (S8) (MLRA 147, 148) 2 cm Muck (A10) (MLF	-
Histic Epipedon (A2) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A	-
Black Histic (A3) Loamy Mucky Mineral (F1) (MLRA 136) (MLRA 147, 148)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain S	Soils (F19)
Stratified Layers (A5) X Depleted Matrix (F3) (MLRA 136, 147)	56110 (1 10)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Red Parent Material (F	F21)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) (outside MLRA 127)	,
Thick Dark Surface (A12) Redox Depressions (F8) Very Shallow Dark Sur	
Sandy Mucky Mineral (S1) Iron-Manganese Masses (F12) (LRR N, Other (Explain in Rema	· · · ·
Sandy Gleyed Matrix (S4) MLRA 136)	,
Sandy Redox (S5) Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic v	vegetation and
Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology mus	
Dark Surface (S7) Red Parent Material (F21) (MLRA 127, 147, 148) unless disturbed or pro	-
Restrictive Layer (if observed):	
Type: Gravel	No
Depth (inches):   6     Hydric Soil Present?   Yes	<u>No</u>

WETLAND DETERMINATION DAT	TA SHEET – Eastern Moun 9; the proponent agency	tains and Piedmont Reg	ion Requirement C	0710-0024, Exp:11/30/2024 ontrol Symbol EXEMPT: 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County: Martin		Sampling Date: 08/10/2024
Applicant/Owner: Lynn Bark Energy	Center, LLC		State: KY	Sampling Point: UP006
Investigator(s): M. Johnson, T. Parrish	- , -	Section, Township, Rang		
	1.	cal relief (concave, conve		Slope (%): 1
Landform (hillside, terrace, etc.): Rise	Lat: 37.793			
Subregion (LRR or MLRA): LRR N				Datum: NAD83
Soil Map Unit Name: FiD - Fiveblock, F	airpoint, and Kaymine solis, 6	to 30 percent slopes, stony	NWI classificatio	on: None
Are climatic / hydrologic conditions on the	e site typical for this time of ye	ar? Yes X	No (If no, ex	plain in Remarks.)
Are Vegetation, SoilX_, or H	lydrology significantly d	isturbed? Are "Normal	Circumstances" present?	Yes X No
Are Vegetation, Soil, or H	lydrology naturally prob	lematic? (If needed, e	explain any answers in Rem	arks.)
SUMMARY OF FINDINGS – Att	ach site map showing	sampling point locat	ions, transects, imp	ortant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         No         X           Yes         No         X           Yes         No         X	Is the Sampled Area within a Wetland?	Yes	No_X
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (n	ninimum of two required)
Primary Indicators (minimum of one is n	equired: check all that apply)		Surface Soil Cracks	
Surface Water (A1)	True Aquatic Plants	(B14)		Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		Drainage Patterns (	
Saturation (A3)	Oxidized Rhizosphe	eres on Living Roots (C3)	Moss Trim Lines (B	16)
Water Marks (B1)	Presence of Reduce	ed Iron (C4)	Dry-Season Water	Table (C2)
Sediment Deposits (B2)	Recent Iron Reduct	ion in Tilled Soils (C6)	Crayfish Burrows (C	
Drift Deposits (B3)	Thin Muck Surface			n Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	emarks)	Stunted or Stressed	· · · ·
Iron Deposits (B5) Inundation Visible on Aerial Imager	w (B7)		Geomorphic Positio Shallow Aquitard (D	· · · ·
Water-Stained Leaves (B9)	y (D7)		Microtopographic R	,
Aquatic Fauna (B13)			FAC-Neutral Test (I	
Field Observations:				,
Surface Water Present? Yes	No X Depth (inc	hes):		
Water Table Present? Yes				
Saturation Present? Yes			d Hydrology Present?	Yes No X
(includes capillary fringe)				
Describe Recorded Data (stream gauge	e, monitoring well, aerial photos	s, previous inspections), if a	available:	
Remarks:				

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test w	orksheet:		
				Number of Dominar			
				That Are OBL, FAC	W, or FAC:	0	(A)
				Total Number of Do			
				Species Across All	Strata:	1	_(B)
				Percent of Dominan			
				That Are OBL, FAC	W, or FAC:	0.0%	(A/
				Prevalence Index v	worksheet:		
		=Total Cover		Total % Cover	r of:	Multiply by:	:
50% of total cover:	20%	of total cover:		OBL species	0 x 1	=0	
pling/Shrub Stratum (Plot size: 15	)			FACW species	0 x 2	= 0	
				FAC species	0 x 3	= 0	
				FACU species	85 x 4	= 340	)
				UPL species	0 x 5	= 0	
				Column Totals:	85 (A)	340	)
					e Index = B/A =		
				Hydrophytic Veget			
				1 - Rapid Test f			
				2 - Dominance		regetation	
				3 - Prevalence		(D	
		=Total Cover		4 - Morphologic	arks or on a sep	· ·	• •
50% of total cover:	20%	of total cover:					<i>.</i>
erb Stratum (Plot size: 5)				Problematic Hy	drophytic Veget	ation' (Expla	ain)
Sorghum halepense	10	No	FACU	<sup>1</sup> Indicators of hydric		, ,,	must
Lespedeza cuneata	60	Yes	FACU	present, unless dist	urbed or probler	natic.	
Asclepias syriaca	10	No	FACU	Definitions of Four	Vegetation St	ata:	
Apocynum cannabinum	5	No	FACU	<b>Tree</b> – Woody plant more in diameter at height.			
				Sapling/Shrub – W than 3 in. DBH and m) tall.		•	
·				Herb – All herbaced of size, and woody p			ardles
	05						고 6 4 :
		=Total Cover	47	Woody Vine – All w height.	oouy vines grea	iter than 3.2	20 IT II
	43 20%	of total cover:	17				
boody Vine Stratum (Plot size: 30 )							
		=Total Cover		Hydrophytic Vegetation			
50% of total cover:		of total cover:			'es I	No X	
	20/0	Si total 00761.		110001111			

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Sampling Point: UP006
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	-					firm the absence of in		
epth	Matrix			ox Features	12	Tautura	Dem	!
nches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Ren	narks
0-6	10YR 5/2	100		·		Loamy/Clayey	Sandy Loam	
		·		·				
Type: C=Conce	entration, D=Dep	letion, RM=F	Reduced Matrix, M	IS=Masked Sand	Grains.	<sup>2</sup> Location:	PL=Pore Lining, N	л=Matrix.
ydric Soil Indi							ators for Problema	
Histosol (A1	1)		Polyvalue B	elow Surface (S8)	(MLRA 1		cm Muck (A10) (M	
Histic Epipe	edon (A2)		Thin Dark S	urface (S9) (MLR	A 147, 14	-8) C	oast Prairie Redox	(A16)
Black Histic				ky Mineral (F1) <b>(N</b>			(MLRA 147, 148)	
Hydrogen S	. ,			ed Matrix (F2)			iedmont Floodplain	Soils (F19)
Stratified La	( )		Depleted Ma	( )			(MLRA 136, 147)	
	(A10) (LRR N)			Surface (F6)			ed Parent Material	(F21)
	elow Dark Surface	e (A11)		ark Surface (F7)			(outside MLRA 12	. ,
-	Surface (A12)	()		essions (F8)			ery Shallow Dark S	
	ky Mineral (S1)			nese Masses (F12	) (LRR N		ther (Explain in Re	
	ed Matrix (S4)		MLRA 13		.) (Eratit	, <u> </u>		inanco)
Sandy Redo				ace (F13) <b>(MLRA</b>	122 136	) <sup>3</sup> Indic	ators of hydrophytic	vertation and
Stripped Ma				oodplain Soils (F			etland hydrology m	
Dark Surfac				Material (F21) (M		-	nless disturbed or p	-
					LIXA 127,			bioblematic.
-	er (if observed):							
Туре:	Gra							
Depth (inche	es):	6				Hydric Soil Preser	nt? Yes	No X
Depth (inch emarks: Soils have beer		6 turbed from p	past land use a su	Irface coal mine.		Hydric Soil Preser	nt? Yes	<u>No X</u>

WETLAND DETERMINATION DA	Army Corps of Engine TA SHEET – Eastern Mo 2-9; the proponent ager	untains and Pied	•	Requirement	0710-0024, Exp:11/30/2024 Control Symbol EXEMPT: R 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center	r	City/Coun	ty: Martin		Sampling Date: 08/11/2024
Applicant/Owner: Lynn Bark Energ				State: KY	Sampling Point: UP007
Investigator(s): M. Johnson, T. Parrish	•	Section Town	ship, Range: N/A		
Landform (hillside, terrace, etc.): Ris		Local relief (conca		,	Slope (%): 1
Subregion (LRR or MLRA): LRR N	Lat: <u>37.</u>		Long: -82.5		Datum: NAD83
Soil Map Unit Name: FiD - Fiveblock,	Fairpoint, and Kaymine soils	, 6 to 30 percent slo	opes, stony	NWI classificat	tion: None
Are climatic / hydrologic conditions on t	he site typical for this time of	f year?	Yes X	No (If no, e	explain in Remarks.)
Are Vegetation, SoilX_, or	Hydrology significant	ly disturbed? A	re "Normal Circur	mstances" present?	Yes X No
Are Vegetation, Soil, or	Hydrology naturally p	oroblematic? (I	lf needed, explain	any answers in Rer	marks.)
SUMMARY OF FINDINGS - A	ttach site map showir	ng sampling po	oint locations	, transects, imp	oortant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Yes         No         X           Yes         No         X           Yes         No         X	Is the Samp within a We		Yes	No <u>X</u>
HYDROLOGY					
Wetland Hydrology Indicators:			Se	condary Indicators (	minimum of two required)
Primary Indicators (minimum of one is	required; check all that appl	v)		Surface Soil Crack	<s (b6)<="" td=""></s>
Surface Water (A1)	True Aquatic Pla	ints (B14)		Sparsely Vegetate	ed Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide	e Odor (C1)		Drainage Patterns	(B10)
Saturation (A3)		pheres on Living Ro	oots (C3)	Moss Trim Lines (	B16)
Water Marks (B1)	Presence of Rec	( )		Dry-Season Water	. ,
Sediment Deposits (B2)		uction in Tilled Soils	s (C6)	Crayfish Burrows (	
Drift Deposits (B3)	Thin Muck Surfa			-	on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain ir	r Remarks)		Stunted or Stresse Geomorphic Positi	
Inundation Visible on Aerial Image	erv (B7)			Shallow Aquitard (	( )
Water-Stained Leaves (B9)				Microtopographic	,
Aquatic Fauna (B13)				FAC-Neutral Test	· · ·
Field Observations:					
Surface Water Present? Yes	No X Depth (	inches):			
Water Table Present? Yes	No X Depth (	inches):			
Saturation Present? Yes	No X Depth (	inches):	Wetland Hydi	rology Present?	Yes No X
(includes capillary fringe)					
Describe Recorded Data (stream gaug	ge, monitoring well, aerial ph	otos, previous inspe	ections), if availab	le:	
Remarks:					

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test wo	rksheet:		
				Number of Dominant	Species		
				That Are OBL, FACV		0	(A)
				Total Number of Dom			
				Species Across All S		1	(B
							_(0)
				Percent of Dominant		0.00/	
				That Are OBL, FACW		0.0%	(A/
·				Prevalence Index w			
		=Total Cover		Total % Cover	of: M	ultiply by:	
50% of total cover:	20%	of total cover:		OBL species	0 x 1 =	0	
apling/Shrub Stratum (Plot size: 15	)			FACW species	0 x 2 =	0	
	-			FAC species	0 x 3 =	0	
				FACU species	95 x 4 =	380	
				UPL species	0 x 5 =	0	
				· · ·			
		<u> </u>			<u>95</u> (A)	380	
					Index = $B/A =$	4.00	
				Hydrophytic Vegeta	tion Indicators:		
				1 - Rapid Test fo	r Hydrophytic Ve	getation	
				2 - Dominance T	est is >50%		
				3 - Prevalence Ir	ldex is ≤3.0 <sup>1</sup>		
		=Total Cover		4 - Morphologica	I Adaptations <sup>1</sup> (P	rovide sup	troac
50% of total cover:		of total cover:			ks or on a separa		
	20%			Droblematic Llud	ranhutia Vagatati	ر میں <sup>1</sup> (Evenio	
erb Stratum (Plot size: 5)		N/	54.011	Problematic Hyd	ropnytic vegetati	on (Expla	iin)
Lespedeza cuneata	80	Yes	FACU	<sup>1</sup> Indicators of hydric s		, ,,	must
Rudbeckia hirta	5	No	FACU	present, unless distu	bed or problema	tic.	
Ambrosia artemisiifolia	10	No	FACU	Definitions of Four	Vegetation Strat	a:	
				Tree – Woody plants	, excluding vines	, 3 in. (7.6	cm
				more in diameter at b	reast height (DB	H), regard	lless
				height.			
				Sapling/Shrub – Wo than 3 in. DBH and g			
				m) tall.	reater than or eq	uai lo 3.20	5 11
				,			
0				Herb – All herbaceou	( , , , , , , , , , , , , , , , , , , ,	, 0	ardle
I				of size, and woody pl	ants less than 3.	28 ft tall.	
	95	=Total Cover		Woody Vine - All wo	ody vines greate	r than 3.2	8 ft i
50% of total cover:	48 20%	of total cover:	19	height.			
/oody Vine Stratum (Plot size: 30 )			-				
(FIOLSIZE)							
·							
				Hydrophytic			
		=Total Cover					
50% of total cover:		=Total Cover of total cover:		Vegetation	s No	X	

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Sampling Point: UP007
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Depth	Matrix		Redo	ox Featur	es					
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u> </u>	Rem	arks
0-6	10YR 4/2	55	2.5YR 4/3	45	С	М	Loamy/Cla	уеу	Sandy loan	n
	oncentration, D=Deple	tion PM-		S-Mook	od Sand (	Croine	21	ocation: PL=	Poro Liping M	I-Motrix
	Indicators:	elion, ravi-	-Reduced Matrix, M	S-Maski	eu Sanu (	Grains.	L			tic Hydric Soil
Histosol			Polyvalue B	elow Sur	face (S8)		47 148)		uck (A10) (MI	
-	pipedon (A2)		Thin Dark S		. ,	•			Prairie Redox	-
Black Hi	,		Loamy Mucky Mineral (F1) (MLRA 136)					(MLRA 147, 148)		
	n Sulfide (A4)		Loamy Gley		• • •	2101100	)	•	ont Floodplain	Soils (E19)
, ,	d Layers (A5)		Depleted Ma		(12)				A 136, 147)	00113 (1 10)
	uck (A10) <b>(LRR N)</b>		Redox Dark	. ,	(F6)				rent Material	(F21)
	d Below Dark Surface	(A11)	Depleted Da		· /				ide MLRA 12	( )
	ark Surface (A12)	()	Redox Depr		. ,				nallow Dark S	
-	lucky Mineral (S1)		Iron-Mangar		, ,	) (LRR N			Explain in Rer	. ,
_ `	Gleyed Matrix (S4)		MLRA 13			, (	2			,
	Redox (S5)		Umbric Surf	,	) (MLRA	122, 136	)	<sup>3</sup> Indicators	of hydrophytic	vegetation and
_	Matrix (S6)		Piedmont FI		<i>,</i> .					ust be present,
	rface (S7)		Red Parent	•		<i>,</i> .			disturbed or p	•
estrictive I	Layer (if observed):									
Type:	Grav	el								
Depth (ir	nches):	6					Hydric So	il Present?	Yes	No X
emarks:										
oils have be	een significantly distu	bed from	past land use a sur	face coa	l mine. T	<i>w</i> o matrix	colors, the se	econd color is	considered pa	rt of the matrix a
ot a pour lir	ning or soft mass (the	efore doe	s not qualify for F3)							

U.S. Army Co WETLAND DETERMINATION DATA SHEET See ERDC/EL TR-12-9; the pr		ains and Piedn	•	Requirement	: 0710-0024, Exp:11/30/2024 Control Symbol EXEMPT: R 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County	: Martin		Sampling Date: 08/11/2024
Applicant/Owner: Lynn Bark Energy Center, L	LC			State: KY	Sampling Point: UP008
Investigator(s): M. Johnson, T. Parrish		Section. Towns	hip, Range: N/A		
Landform (hillside, terrace, etc.): Rise			/e, convex, none)		Slope (%): 1
Subregion (LRR or MLRA): LRR N	Lat: 37.791		Long: -82.55		Datum: NAD83
Soil Map Unit Name: FiD - Fiveblock, Fairpoint, a				NWI classifica	
Are climatic / hydrologic conditions on the site typic	,				
	5			nstances" present?	explain in Remarks.) Yes X No
Are Vegetation, Soil _X , or Hydrology					
Are Vegetation, Soil, or Hydrology			-	any answers in Re	
SUMMARY OF FINDINGS – Attach site	e map showing s	sampling poi	nt locations,	transects, im	portant features, etc.
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes         Remarks:       Yes	No X No X No X	Is the Sample within a Wetl		Yes	No <u>X</u>
HYDROLOGY					
Wetland Hydrology Indicators:			Sec	ondary Indicators	(minimum of two required)
Primary Indicators (minimum of one is required; cl	heck all that apply)			Surface Soil Crac	ks (B6)
Surface Water (A1)	True Aquatic Plants	(B14)		Sparsely Vegetate	ed Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Oc			Drainage Patterns	s (B10)
Saturation (A3)	Oxidized Rhizospher		ots (C3)	Moss Trim Lines (	
Water Marks (B1)	Presence of Reduce	. ,	(C6)	Dry-Season Wate	. ,
Sediment Deposits (B2) Drift Deposits (B3)	Recent Iron Reduction		(C6)	Crayfish Burrows	on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	•		Stunted or Stress	
Iron Deposits (B5)		,		Geomorphic Posit	( )
Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard	(D3)
Water-Stained Leaves (B9)				Microtopographic	Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral Test	(D5)
Field Observations:					
		ies):			
	X Depth (inch X Depth (inch		Watland Hydr	ology Present?	Vac No V
Saturation Present? Yes No (includes capillary fringe)	X Depth (inch	<u> </u>	wettand riyun	blogy Fresent:	Yes <u>No X</u>
Describe Recorded Data (stream gauge, monitorin	ng well, aerial photos	, previous inspec	tions), if available	e:	
Remarks:					

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test	worksheet:		
				Number of Domina	ant Species		
				That Are OBL, FAC	CW, or FAC:	0	(A)
				Total Number of D	ominant		
				Species Across All	Strata:	1	(B)
				Percent of Domina	nt Species		
				That Are OBL, FA		0.0%	(A/E
				Prevalence Index	worksheet:		
		=Total Cover		Total % Cove	er of:	Multiply by	/:
50% of total cover:	20%	of total cover:		OBL species		1 = 0	
apling/Shrub Stratum (Plot size: 15	) 20,0			FACW species		2 = 0	
	_)			FAC species		3 = 30	
					-		
				FACU species		4 = 340	
				UPL species		5 = 0	
				Column Totals:	95 (A)	370	) (
				Prevalence	ce Index = B/A	. = 3.89	
				Hydrophytic Vege	tation Indicate	ors:	
				1 - Rapid Test	for Hydrophytic	c Vegetation	
				2 - Dominance	e Test is >50%		
				3 - Prevalence	Index is ≤3.0 <sup>1</sup>		
		=Total Cover		4 - Morphologi	cal Adaptation	s <sup>1</sup> (Provide su	upportin
50% of total cover:		of total cover:		data in Rem	narks or on a se	eparate sheet	t)
erb Stratum (Plot size: 5 )				Problematic H	vdrophytic Vea	etation <sup>1</sup> (Evo	lain)
Lespedeza cuneata	70	Yes	FACU		, , , , ,		,
				<sup>1</sup> Indicators of hydri		, ,,	/ must ł
Coleataenia anceps		No	FAC	present, unless dis			
Ambrosia artemisiifolia Tridens flavus	5	No	FACU	Definitions of Fou	ir Vegetation s	Strata:	
Tridens flavus	10	No	FACU	Tree – Woody plan			
				more in diameter a height.	it breast height	(DBH), regar	rdless c
				neight.			
				Sapling/Shrub – V	Voody plants, e	excluding vine	es, less
				than 3 in. DBH and	l greater than c	or equal to 3.2	28 ft
				m) tall.			
).				Herb – All herbace	ous (non-wood	dy) plants, rec	ardless
1.				of size, and woody			
	95	=Total Cover		Woody Vine – All	woody vines ar	reater than 3	28 ft in
50% of total cover:			10	height.	woody vinco gi		20 10 11
	40 20%	of total cover:	19				
Voody Vine Stratum (Plot size: 30 )							
·							
				l hadne a hadi e			
		=Total Cover		Hydrophytic Vegetation			
				regeration			

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Sampling Point: UP008
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Color (moist)       Color (moist)       Type       Loc <sup>2</sup> Texture       Remarks         0-6       2.5YR 4/2       55       10YR 4/6       45       C       M       Loamy/Clayey       sandy loam	Depth	ption: (Describe to Matrix	o the dep		ment the ox Featur		or or con	firm the absence of i	indicators.)	
0-6       2.5YR 4/2       55       10YR 4/6       45       C       M       Loamy/Clayey       sandy loam         1<	· · ·		%				Loc <sup>2</sup>	Texture	I	Remarks
Hydric Soil Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No X         Pupet:       Gravel       Hydric Soil Present?       Yes No X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors	0-6	2.5YR 4/2			45			Loamy/Clayey	sandy	oam
ydric Soil Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Etstrictive Layer (if observed):       Type:       Gravel       No X         Type:       Gravel       Hydric Soil Present? Yes       No X         Depth (inches):       6       Hydric Soil Present? Yes       No X										a M=Matrix
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present, unless disturbed or problematic.         Type:       Gravel       Hydric Soil Present?       Yes       No       X         Depth (inches):       6       Hydric Soil Present?       Yes       No       X					3-IVIASK	eu Sanu	Grains.			
Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       Med Parent Material (F21) (MLRA 127, 147, 148)         Depth (inches):       6       Hydroc coal mine. Two matrix colors       Yes       No	-			Polyaduo P		Faco (59)				
Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       Meresent?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Yes       No       X		-								
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Soils       S										, ,
Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No       X         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Two matrix colors										
2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No       X         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Soils       Soil Share coal mine. Two matrix colors	, ,	( )				(/		·		( )
Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Soil Shave been significantly disturbed from past land use a surface coal mine. Two matrix colors		<b>,</b> , ,			. ,	(F6)		F	•	
Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation and         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       3Indicators of hydrophytic vegetation and         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No       X         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       toils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Two matrix colors	Depleted B	elow Dark Surface	(A11)	Depleted Da	irk Surfa	ce (F7)			(outside MLR	A 127, 147, 148)
Sandy Gleyed Matrix (S4)       MLRA 136)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)         Restrictive Layer (if observed):       Type:	Thick Dark	Surface (A12)		Redox Depr	essions (	F8)		\	/ery Shallow Dai	k Surface (F22)
Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and solar (S6)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       No X         Depth (inches):       6       Hydric Soil Present?       Yes       No X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Two matrix colors	Sandy Muc	cky Mineral (S1)		Iron-Mangar	nese Mas	sses (F12	2) (LRR N	l, <u> </u>	Other (Explain in	Remarks)
Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       toils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Two matrix colors								-		
Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Two matrix colors								-		
Restrictive Layer (if observed):         Type:       Gravel         Depth (inches):       6         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors							, ,	-		
Type:     Gravel       Depth (inches):     6       Hydric Soil Present?     Yes       No     X   Remarks: Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors	Dark Surfa	ce (S7)		Red Parent	Material	(F21) <b>(M</b>	LRA 127,	147, 148) u	inless disturbed	or problematic.
Depth (inches):       6       Hydric Soil Present?       Yes       No       X         Remarks:       Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors       Ves	Restrictive Lay	yer (if observed):								
Remarks: Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors	Туре:	Grav								
Soils have been significantly disturbed from past land use a surface coal mine. Two matrix colors	Depth (inch	nes):	6					Hydric Soil Prese	nt? Yes	<u>No X</u>
	not classified a	s soft masses or wil	thin pore I	ining and would not	qualify f	or F3.				

U.S. Army WETLAND DETERMINATION DATA SHI See ERDC/EL TR-12-9; the		tains and Piedm	•	Requirement (	0710-0024, Exp:11/30/2024 Control Symbol EXEMPT: R 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County	: Martin		Sampling Date: 08/11/20
Applicant/Owner: Lynn Bark Energy Cente	r. LLC			State: KY	Sampling Point: UP00
Investigator(s): M. Johnson, T. Parrish		Section, Townsh	hin Range: N/A		
Landform (hillside, terrace, etc.): Rise		cal relief (concav			Slope (%): 1
Subregion (LRR or MLRA): LRR N Soil Map Unit Name: FiD - Fiveblock, Fairpoin	Lat: <u>37.789</u>		Long: -82.56		Datum: NAD83
· · · · · ·	, , ,		, ,	NWI classificat	
Are climatic / hydrologic conditions on the site t	,		Yes <u>X</u> N	lo (If no, e	explain in Remarks.)
Are Vegetation, SoilX_, or Hydrolo	gysignificantly d	isturbed? Are	e "Normal Circum	stances" present?	Yes X No
Are Vegetation, Soil, or Hydrolo	gynaturally prob	lematic? (If I	needed, explain a	any answers in Rer	narks.)
SUMMARY OF FINDINGS – Attach s	site map showing	sampling poir	nt locations,	transects, imp	oortant features, etc
Hydric Soil Present?	No         X           Yes         No         X           Yes         No         X           Yes         No         X	Is the Sample within a Wetla		Yes	No <u>X</u>
HYDROLOGY					
Wetland Hydrology Indicators:			Soc	ondary Indicators (	minimum of two required)
Primary Indicators (minimum of one is required	d: check all that apply)		<u></u>	Surface Soil Crack	
Surface Water (A1)	True Aquatic Plants	(B14)			d Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O			Drainage Patterns	
Saturation (A3)	Oxidized Rhizosphe	eres on Living Roo	ts (C3)	Moss Trim Lines (I	B16)
Water Marks (B1)	Presence of Reduce	ed Iron (C4)		Dry-Season Water	Table (C2)
Sediment Deposits (B2)	Recent Iron Reducti		. ,	Crayfish Burrows (	
Drift Deposits (B3)	Thin Muck Surface (				on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Re	emarks)		Stunted or Stresse Geomorphic Positi	
Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (	
Water-Stained Leaves (B9)				Microtopographic I	,
Aquatic Fauna (B13)				FAC-Neutral Test	
Field Observations:			<u>.</u>		
Surface Water Present? Yes	No X Depth (incl	hes):			
	No X Depth (incl				
	No X Depth (incl	hes):	Wetland Hydro	ology Present?	Yes No X
(includes capillary fringe)			4:		
Describe Recorded Data (stream gauge, moni	toring well, aerial photos	s, previous inspec	tions), if available	9:	
Remarks:					

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test wo	orksheet:		
·				Number of Dominan	t Species		
·				That Are OBL, FAC	V, or FAC:	0	(A)
				Total Number of Dor	minant		
	_			Species Across All S	Strata:	1	(B)
				Percent of Dominant	Species		
				That Are OBL, FAC		0.0%	(A/E
				Prevalence Index w	orksheet:		
		=Total Cover		Total % Cover	of: N	/lultiply by:	
50% of total cover:	20%	of total cover:		OBL species	0 x 1 =	0	
apling/Shrub Stratum (Plot size: 15	)			FACW species	0 x 2 =	0	
· · · · · · · · · · · · · · · · · · ·	/			FAC species	10 x 3 =		
				FACU species	70 x 4 =		
				UPL species	$\frac{10}{0}$ x 5 =		—
						-	<u> </u>
				Column Totals:	80 (A)	310	(
	_				Index = $B/A =$	3.88	
				Hydrophytic Vegeta			
				1 - Rapid Test fo	or Hydrophytic Ve	egetation	
				2 - Dominance 1	Test is >50%		
				3 - Prevalence I			
	:	=Total Cover			al Adaptations <sup>1</sup> (F		
50% of total cover:	20%	of total cover:		data in Rema	rks or on a sepa	ate sheet)	
lerb Stratum (Plot size: 5 )				Problematic Hyd	Irophytic Vegetat	ion <sup>1</sup> (Expla	ain)
Lespedeza cuneata	55	Yes	FACU	<sup>1</sup> Indicators of hydric	soil and wetland	hvdroloav	must
Trifolium repens	10	No	FACU	present, unless distu		, .,	
Ambrosia artemisiifolia	5	No	FACU	Definitions of Four	Vegetation Stra	ta:	
Setaria pumila	10	No	FAC	Tree – Woody plants	excluding vine	s 3 in (7 6	s cm)
<i>,</i>				more in diameter at			
				height.	Ū (		
				Sapling/Shrub – We than 3 in. DBH and g		0	
				m) tall.		100.20	,
				Í.,	<i>,</i>		
				Herb – All herbaceo			ardles
					lanta logo than 2	.20 It tall.	
				, , , , , , , , , , , , , , , , , , , ,	lants less than 3		0.0.1
		=Total Cover		Woody Vine – All w		er than 3.2	8 ft in
	80	=Total Cover of total cover:	16	, , , , , , , , , , , , , , , , , , , ,		er than 3.2	8 ft in
1	80		16	Woody Vine – All w		er than 3.2	8 ft in
1	80		16	Woody Vine – All w		er than 3.2	8 ft in
1	80		16	Woody Vine – All w		er than 3.2	8 ft in
1	80		16	Woody Vine – All w		er than 3.2	8 ft in
150% of total cover: /oody Vine Stratum (Plot size:30)	80		16	Woody Vine – All w		er than 3.2	.8 ft in
1 50% of total cover:	80		16	Woody Vine – All w		er than 3.2	.8 ft in
1	80 40 20%	of total cover:	16	Woody Vine – All w height.		er than 3.2	.8 ft in
1	80 40 20%		16	Woody Vine – All w height. Hydrophytic Vegetation	oody vines great	er than 3.2	.8 ft in

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Sampling Point: UP009
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Color (moist)       %       Color (moist)       %       Type1       Loc2       Texture       Remarks         0-6       2.5YR 4/3       100		needed to document the indicator or confir	m the absence of Inc	licators.)
0-6       2.5YR 4/3       100       Loamy/Clayey       Sandy Loam         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Indicators for Problematic Hydric Solit         Histosol (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histosol (A1)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       Red Dark Surface (F6)       Red Parent Material (F21)         10epleted Below Dark Surface (A11)       Depleted Dark Surface (F6)       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 142, 147, 148)       other (Explain in Remarks)         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 142, 147, 148)       unless disturbed or problematic.         Retribue Layer (for Observed):       Piedmont Floodplain Soils (F19) (MLRA 142, 1	· · · · · · · · · · · · · · · · · · ·	Redox Features		
OO       2.0111703       Too       Coality Coayor       2         Type:       2.02111703       Too       2       Coality Coayor       2         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.       2       Cocation: PL=Pore Lining, M=Matrix.         Histosol (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147, 148)       Coast Praire Redox (A16)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Praire Redox (A16)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Praire Redox (A16)         Stratified Layers (A5)       Depleted Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 147, 148)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)       Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N, MLRA 136)       Other (Explain in Remarks)       Sandy Redox (S5)       Umbrich Surface (F13) (MLRA 142, 147, 148)       Very Shallow Dark Surface (F22)       Sandy Mucky Mineral (S1)       Sandra Redox (S5)       Sandra Redox (S5)       Sandra Redox (S5)       Sandra Redox (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)	nches) Color (moist) %	Color (moist) % Type' Loc <sup>2</sup>	lexture	Remarks
Hydric Soil Indicators:       Indicators for Problematic Hydric Soil:         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)       Red Parent Material (F21)         Opeleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present, unless disturbed or problematic.         Type:       Gravel       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be present, unless disturbed or problematic.         Remarks:       6       Hydric Soil Present?       Y	0-6 2.5YR 4/3 100		Loamy/Clayey	Sandy Loam
ydric Soil Indicators:       Indicators for Problematic Hydric Soil:         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel       Hydric Soil Present?       Yes       No       X         marks: <t< td=""><td></td><td></td><td></td><td></td></t<>				
dric Soil Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present,         Dark Surface (S7)       Gravel <td< td=""><td></td><td></td><td></td><td></td></td<>				
ydric Soil Indicators:       Indicators for Problematic Hydric Soil:         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel       N	ype: C=Concentration, D=Depletion, RM=	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Opeleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel       No       X         Depth (inches):       6       Hydric Soil Present?       Yes       No       X				
	Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) 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) estrictive Layer (if observed): Type: <u>Gravel</u> Depth (inches): <u>6</u>	Thin Dark Surface (S9) (MLRA 147, 148) Loamy Mucky Mineral (F1) (MLRA 136) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 122, 136) Piedmont Floodplain Soils (F19) (MLRA 1 Red Parent Material (F21) (MLRA 127, 14	7, 148)2 c Coa (I Pie (I ( ( (  (a 	m Muck (A10) <b>(MLRA 147)</b> ast Prairie Redox (A16) <b>MLRA 147, 148)</b> dmont Floodplain Soils (F19) <b>MLRA 136, 147)</b> d Parent Material (F21) <b>butside MLRA 127, 147, 148)</b> ry Shallow Dark Surface (F22) her (Explain in Remarks) ors of hydrophytic vegetation and tland hydrology must be present, ess disturbed or problematic.

U.S. Army Corps of Enginee WETLAND DETERMINATION DATA SHEET – Eastern Moun See ERDC/EL TR-12-9; the proponent agency	tains and Piedmont Region Requirement Control Symbol EXEMPT:
Project/Site: Lynn Bark Energy Center	City/County: Martin Sampling Date: 08/11/2024
Applicant/Owner: Lynn Bark Energy Center, LLC	State: KY Sampling Point: UP010
Investigator(s): M. Johnson, T. Parrish	Section, Township, Range: N/A
	ocal relief (concave, convex, none): Convex Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat: 37.79	<b>0</b>
Soil Map Unit Name: FiD - Fiveblock, Fairpoint, and Kaymine soils, 6	to 30 percent slopes, stony NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, SoilX_, or Hydrologysignificantly of	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally prof	plematic? (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 X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	
Upland point assoicated with Wetland 010 Soils have been significant	iy disturbed from past land use a surface coal mine.
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)         True Aquatic Plants           High Water Table (A2)         Hydrogen Sulfide C	
	Dor (C1)
Water Marks (B1) Presence of Reduc	
	tion in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)	
Algal Mat or Crust (B4) Other (Explain in R	emarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No X Depth (inc	has).
Surface Water Present?         Yes         No         X         Depth (inc           Water Table Present?         Yes         No         X         Depth (inc	
Saturation Present? Yes No X Depth (inc	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	

	as Stratum (Distaire) 20	Absolute	Dominant	Indicator	Deminence Test worksheet	
Image: Solution of DBL, FACW, or FAC:       0         That Are OBL, FACW, or FAC:       0         That Are OBL, FACW, or FAC:       0         Image: Solution of DBL, FACW, or FAC:       0 <tr< td=""><td>ee Stratum (Plot size: <u>30</u>)</td><td>% Cover</td><td>Species?</td><td>Status</td><td>Dominance Test worksheet:</td><td></td></tr<>	ee Stratum (Plot size: <u>30</u> )	% Cover	Species?	Status	Dominance Test worksheet:	
		·				0 (4)
Species Across All Strata:       1		·			That Are OBL, FACW, or FAC:	0 (A)
Percent of Dominant Species         That Are OBL, FACW, or FAC:       0.0%         \$9% of total cover:       20% of total cover:         \$90 (A) Stratum       75 x 4 = 300         \$90 (A) Stratum       90 (A) 345         \$90 (A) Stratum       90 (A) 345         \$90% of total cover:       20% of total cover:         \$90       15       No         FACU       Prevalence index is 3.01         \$15       No         \$20% of total cover:       15         \$20% of total cover:       20% of total cover:         \$15       No         \$20% of total cover:       5 </td <td></td> <td>·</td> <td></td> <td></td> <td></td> <td></td>		·				
Imat Are OBL, FACW, or FAC:       0.0%         Frevalence Index worksheet:       Total % Cover of:         Joing/Shrub Stratum (Plot size:       15         Joing/Shrub Stratum (Plot size:       20% of total cover:         Joing/Shrub Stratum (Plot size:       50% of total cover:         20% of total cover:       20% of total cover:         15       No         FACU       Prevalence Index is s3.0 <sup>1</sup> 20       Problematic         20% of total cover:       20% of total cover:         20% of total cover:       20% of total cover:         20% of total cover:       50% of total cover:         400       Provelance Index is s3.0 <sup>1</sup> 200       FACU		·			Species Across All Strata:	1 (B)
S0% of total cover:       20% of total cover:       Total % Cover of:       Multiply by:         spling/Shrub Stratum       (Plot size:       15       )       FACW species       0       x 2 =       0         FACU species       0       x 2 =       0       X 2 =       0         Column Totals:       90       (A)       345         Prevalence Index = B/A =       3.83         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation       1 - Rapid Test for Hydrophytic Vegetation         20% of total cover:       20% of total cover:       20% of total cover:       -       -         species       5       Yes       FACU       -       -         1< Rapid Test for Hydrophytic Vegetation						0.0% (A
50% of total cover:       20% of total cover:         pling/Shrub Stratum       (Plot size:       15					Prevalence Index worksheet:	
pling/Shrub Stratum       (Plot size: 15 )			=Total Cover		Total % Cover of:	Multiply by:
FAC species       15       x 3 =       45         FAC species       15       x 3 =       45         FAC species       0       x 5 =       0         Column Totals:       90       (A)       345         Prevalence Index = B/A =       3.83         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation         2       2 - Dominance Test is >50%         3 - Prevalence Index is 3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide sup data in Remarks or on a separate sheet)	50% of total cover:	20%	of total cover:		OBL species 0 x 1 =	= 0
FACU species       75       x 4 =       300         UPL species       0       x 5 =       0         Column Totals:       90       (A)       345         Prevalence Index = B(A =       3.83         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation         S0% of total cover:       20% of total cover:       1 - Rapid Test for Hydrophytic Vegetation         b Stratum       55       Yes       FACU         Tridens flavus       15       No       FACU         Ambrosia artemisifolia       5       Yes       FACU         Coleatenia anceps       10       No       FACU         Dichanthelium clandestinum       5       No       FAC         90       =Total Cover       18       Tree – Woody plants, excluding vines, 3 in .(7.6         woody plants, excluding vines, 45       20% of total cover:       18         90       =Total Cover       18       Woody Vine – All woody vines greater than 3.2         more in diameter at breast height (Det size:       30       )       11         90       =Total Cover       18       Woody Vine – All woody vines greater than 3.2         more in diameter at breast height (Det size:       30       )       14	bling/Shrub Stratum (Plot size: 15	)			FACW species 0 x 2 =	= 0
UPL species       0       x 5 =       0         Column Totals:       90       (A)       345         Prevalence Index = BJA =       3.83         Hydrophytic Vegetation Indicators:       1       Rapid Test for Hydrophytic Vegetation         2       20% of total cover:       20% of total cover:       1       -         50% of total cover:       20% of total cover:       -       -       -         1       FACU       Prevalence Index is 5.3.0 <sup>1</sup> -       -         Lespedeza cuneata       55       Yes       FACU       -       Problematic Hydrophytic Vegetation <sup>1</sup> (Explanding Tree - Woody plants, excluding vines, 3 in (7.6         Dichanthelium clandestinum       5       No       FAC       -       FAC         90       =Total Cover       -       -       -       -       -         90       =Total Cover       -       -       -       -       -       -         90       =Total Cover       - <td< td=""><td></td><td></td><td></td><td></td><td>FAC species 15 x 3 =</td><td>= 45</td></td<>					FAC species 15 x 3 =	= 45
Column Totals:       90 (A)       345         Prevalence Index = B/A =       3.83         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation					FACU species 75 x 4 =	= 300
Prevalence Index = B/A =					UPL species 0 x 5 =	= 0
Hydrophytic Vegetation Indicators:					Column Totals: 90 (A)	345
Hydrophytic Vegetation Indicators:					Prevalence Index = B/A =	3.83
		· · · · · · · · · · · · · · · · · · ·				
		·				
						egetation
solve of total cover:		·			,	
50% of total cover:		·				Dura viala a como a at
borst in team order.						
Lespedeza cuneata       55       Yes       FACU         Tridens flavus       15       No       FACU         Ambrosia artemisiifolia       5       No       FACU         Coleataenia anceps       10       No       FAC         Dichanthelium clandestinum       5       No       FAC         Dichanthelium clandestinum       5       No       FAC		20%	of total cover:			,
Tridens flavus       15       No       FACU         Ambrosia artemisiifolia       5       No       FACU         Coleataenia anceps       10       No       FAC         Dichanthelium clandestinum       5       No       FAC					Problematic Hydrophytic Vegeta	ition' (Explain)
Ambrosia artemisiifolia       5       No       FACU       Definitions of Four Vegetation Strata:         Coleataenia anceps       10       No       FAC       Tree – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height.         Dichanthelium clandestinum       5       No       FAC						(=)
Coleataenia anceps       10       No       FAC         Dichanthelium clandestinum       5       No       FAC         Sapling/Shrub – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height.         Sapling/Shrub – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height.         Sapling/Shrub – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height.         Sapling/Shrub – Woody plants, excluding vines, 3 in. DBH and greater than or equal to 3.26 m) tall.         Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.         woody Vine Stratum (Plot size:	Lespedeza cuneata	·				l hydrology mus
Dichanthelium clandestinum       5       No       FAC		·				l hydrology mus
	Tridens flavus	15	No	FACU	present, unless disturbed or problem	l hydrology mus natic.
Sapling/Shrub – Woody plants, excluding vines         Sapling/Shrub – Woody plants, excluding vines         than 3 in. DBH and greater than or equal to 3.28         m) tall.         Herb – All herbaceous (non-woody) plants, rega         of size, and woody plants less than 3.28 ft tall.         90       =Total Cover         50% of total cover:       18         woody Vine Stratum       (Plot size:         30       )	Tridens flavus Ambrosia artemisiifolia	15 5	No No	FACU FACU	present, unless disturbed or problem Definitions of Four Vegetation Stra	l hydrology mus natic. ata:
than 3 in. DBH and greater than or equal to 3.28 m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall. 90 =Total Cover 50% of total cover: 45 20% of total cover: 18 body Vine Stratum (Plot size: 30)	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps	15 5 10	No No No	FACU FACU FAC	present, unless disturbed or problem Definitions of Four Vegetation Stra Tree – Woody plants, excluding vine more in diameter at breast height (D	l hydrology mus natic. <b>ata:</b> es, 3 in. (7.6 cm)
than 3 in. DBH and greater than or equal to 3.28 m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall. 90 =Total Cover 50% of total cover: 45 20% of total cover: 18 body Vine Stratum (Plot size: 30)	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps	15 5 10	No No No	FACU FACU FAC	present, unless disturbed or problem Definitions of Four Vegetation Stra Tree – Woody plants, excluding vine more in diameter at breast height (D	l hydrology mus natic. <b>ata:</b> es, 3 in. (7.6 cm
	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps	15 5 10	No No No	FACU FACU FAC	present, unless disturbed or problem Definitions of Four Vegetation Stra Tree – Woody plants, excluding vine more in diameter at breast height (D height.	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless
90       =Total Cover         50% of total cover:       45       20% of total cover:       18         body Vine Stratum       (Plot size:       30       )	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps	15 5 10	No No No	FACU FACU FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless Juding vines, les
90       =Total Cover         50% of total cover:       45         20% of total cover:       18         body Vine Stratum       (Plot size:         30       )	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps	15 5 10	No No No	FACU FACU FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless Juding vines, les
90       =Total Cover       Woody Vine – All woody vines greater than 3.24         50% of total cover:       45       20% of total cover:       18         body Vine Stratum       (Plot size:       30       )	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps Dichanthelium clandestinum	15 5 10 5	No No No	FACU FACU FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.	l hydrology mus natic. ata: es, 3 in. (7.6 cm) BH), regardless Juding vines, les qual to 3.28 ft
50% of total cover:       45       20% of total cover:       18       height.         body Vine Stratum       (Plot size:       30       )	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps Dichanthelium clandestinum	15 5 10 5	No No No	FACU FACU FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)	l hydrology mus natic. ata: es, 3 in. (7.6 cm) BH), regardless Juding vines, les equal to 3.28 ft plants, regardle
body Vine Stratum     (Plot size:30)	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps Dichanthelium clandestinum	15 5 10 5	No           No           No	FACU FACU FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus Ambrosia artemisiifolia Coleataenia anceps Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless duding vines, les equal to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless duding vines, les equal to 3.28 ft plants, regardle 3.28 ft tall.
Hydrophytic	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
Hydrophytic	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm BH), regardless duding vines, les equal to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15 5 10 5 	No No No Total Cover	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or em) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great         height.	l hydrology mus natic. ata: es, 3 in. (7.6 cm, BH), regardless duding vines, les qual to 3.28 ft plants, regardle 3.28 ft tall.
50% of total cover: 20% of total cover: Present? Yes No X	Tridens flavus         Ambrosia artemisiifolia         Coleataenia anceps         Dichanthelium clandestinum	15         5         10         5	No No No No Total Cover of total cover:	FACU FACU FAC FAC	present, unless disturbed or problem         Definitions of Four Vegetation Strat         Tree – Woody plants, excluding vine         more in diameter at breast height (D         height.         Sapling/Shrub – Woody plants, exc         than 3 in. DBH and greater than or e         m) tall.         Herb – All herbaceous (non-woody)         of size, and woody plants less than 3         Woody Vine – All woody vines great	I hydrology must natic. ata: es, 3 in. (7.6 cm) BH), regardless Iduding vines, les equal to 3.28 ft plants, regardles 3.28 ft tall.

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Sampling Point: UP010
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Profile Desci	ription: (Describe t	o the depth	needed to docu	ment the indica	tor or con	firm the absence of i	ndicators.)	
Depth	Matrix	•		ox Features			,	
(inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	marks
0-6	2.5YR 4/3	100				Loamy/Clayey	sandy loa	m
					·			
				·				
			oduced Metrix N			21 0004ion	PL=Pore Lining,	N-N-triv
Hydric Soil II	ncentration, D=Depl		educed Matrix, iv	IS-IVIASKED Sand	i Grains.		ators for Problem	
Histosol (			Polyvalue B	elow Surface (S8			2 cm Muck (A10) (N	
	ipedon (A2)			urface (S9) (MLF			Coast Prairie Redo	-
Black His				ky Mineral (F1) (I		·	(MLRA 147, 148)	,
	n Sulfide (A4)			ed Matrix (F2)		-	Piedmont Floodplai	
Stratified	Layers (A5)		Depleted Ma	atrix (F3)			(MLRA 136, 147)	
	ck (A10) <b>(LRR N)</b>			Surface (F6)		F	Red Parent Materia	
-	Below Dark Surface	(A11)		ark Surface (F7)			(outside MLRA 1	
	rk Surface (A12)			essions (F8)			/ery Shallow Dark	
	ucky Mineral (S1)			nese Masses (F1	2) (LRR N	,	Other (Explain in Re	emarks)
	eyed Matrix (S4)		MLRA 13			2		
Sandy Re				ace (F13) <b>(MLR/</b>			ators of hydrophyt	
	Matrix (S6)			oodplain Soils (F	<i>,</i> .	,	vetland hydrology r	•
Dark Surf			Red Parent	Material (F21) (N	ILRA 127,	<b>147, 148)</b> ι	inless disturbed or	problematic.
	ayer (if observed):							
Type:	Grav							
Depth (in	cnes):	6				Hydric Soil Prese	nt? Yes	<u>No X</u>
Solis nave de	en significantly distu	rbea from p	ast land use a su	Tace coal mine.				

U.S. Army Corps of Enginee WETLAND DETERMINATION DATA SHEET – Eastern Moun See ERDC/EL TR-12-9; the proponent agency	tains and Piedmont Region Requirement Control Symbol EXEMPT:
Project/Site: Lynn Bark Energy Center	City/County: Martin Sampling Date: 08/11/2024
Applicant/Owner: Lynn Bark Energy Center, LLC	State: KY Sampling Point: UP011
Investigator(s): <u>M. Johnson, T. Parrish</u>	Section, Township, Range: <u>N/A</u>
	ocal relief (concave, convex, none): None Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat: 37.79	
Soil Map Unit Name: FiD - Fiveblock, Fairpoint, and Kaymine soils, 6	to 30 percent slopes, stony NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, SoilX_, or Hydrologysignificantly of	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrologynaturally prof	plematic? (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 X	Is the Sampled Area
Hydric Soil Present? Yes No X	within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X	
Upland point assoicated with Wetland 011 Soils have been significan	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) True Aquatic Plants	S (B14) Sparsely Vegetated Concave Surface (B8)
Surface Water (A1) True Aquatic Plants High Water Table (A2) Hydrogen Sulfide C	
	eres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduc	ed Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduct	ion in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface	(C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in R	
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inc	hes):
Water Table Present? Yes No X Depth (inc	hes):
Saturation Present? Yes No X Depth (inc	hes): Wetland Hydrology Present? Yes No _X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	

ree Stratum (Plot size: 30 )	Absolute	Dominant	Indicator	Deminence Test worksheet	
ree Stratum (Plot size: <u>30</u> )	% Cover	Species?	Status	Dominance Test worksheet:	
· · · · · · · · · · · · · · · · · · ·				Number of Dominant Species That Are OBL, FACW, or FAC: 0	(A)
· · · · · · · · · · · · · · · · · · ·					(A)
				Total Number of Dominant	(D)
				Species Across All Strata: 1	_(B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0%	( )
				Prevalence Index worksheet:	(A/
		=Total Cover			
500/ 51.1.1				Total % Cover of: Multiply by:	
50% of total cover:	20%	of total cover:		OBL species $0 \times 1 = 0$	
pling/Shrub Stratum (Plot size: 15 )				FACW species 0 x 2 = 0	
				FAC species 10 x 3 = 30	
				FACU species 80 x 4 = 320	
				UPL species 0 x 5 = 0	
				Column Totals: 90 (A) 350	
				Prevalence Index = B/A = 3.89	
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetation	
				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
		=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide sup	porti
50% of total cover:		of total cover:		data in Remarks or on a separate sheet)	
erb Stratum (Plot size: 5 )				Problematic Hydrophytic Vegetation <sup>1</sup> (Expla	in)
Lespedeza cuneata	60	Yes	FACU		
	15	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology r present, unless disturbed or problematic.	nust
Desmodium paniculatum	5	No	FACU	Definitions of Four Vegetation Strata:	
Andropogon virginicus					
Arthraxon hispidus	10	<u>No</u>	FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height.	
				Sapling/Shrub – Woody plants, excluding vines	loc
				than 3 in. DBH and greater than or equal to 3.28 m) tall.	
				Herb – All herbaceous (non-woody) plants, rega	rdle
				of size, and woody plants less than 3.28 ft tall.	laiot
	90 :	=Total Cover		Woody Vine – All woody vines greater than 3.28	λ. Ωfti₀
·				height.	, n II
		of total cover	19	neight.	
50% of total cover:4		of total cover:	18		
50% of total cover:4		of total cover:	18	neight.	
50% of total cover:4		of total cover:	18		
50% of total cover:4		of total cover:	18		
50% of total cover:4		of total cover:	18		
50% of total cover:4		of total cover:	18		
50% of total cover:4		of total cover:	18		
	520%	of total cover:	18	Hydrophytic Vegetation	

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Sampling Point: UP011
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0-6	Matrix Color (moist) 2.5YR 4/3	<u></u>		x Features <u>%</u> Type <sup>1</sup>	Loc <sup>2</sup>	firm the absence of in		narks
nches)	Color (moist)				Loc <sup>2</sup>	Texture	Ren	narks
	· · · · · ·							
0-6	2.5YR 4/3	100						
						Loamy/Clayey	sandy loar	n
·								
Type: C=Con	centration, D=Deple	tion, RM=R	Reduced Matrix, M	S=Masked Sand	Grains.	<sup>2</sup> Location:	PL=Pore Lining, N	//=Matrix.
lydric Soil In	dicators:					Indicat	ors for Problema	atic Hydric Soils
Histosol (A	A1)		Polyvalue Be	low Surface (S8	) <b>(MLRA</b> 1	1 <b>47, 148)</b> 2 c	m Muck (A10) <b>(M</b>	LRA 147)
Histic Epip Black Histi				ırface (S9) <b>(MLR</b> y Mineral (F1) <b>(N</b>		· · · · · · · · · · · · · · · · · · ·	ast Prairie Redox MLRA 147, 148)	(A16)
	Sulfide (A4) ∟ayers (A5)		Loamy Gleye	ed Matrix (F2)			edmont Floodplain MLRA 136, 147)	Soils (F19)
	k (A10) <b>(LRR N)</b>		Redox Dark				d Parent Material	(F21)
	Below Dark Surface	(A11)		rk Surface (F7)			outside MLRA 12	
	(Surface (A12)	(,,,,,)	Redox Depre				ry Shallow Dark S	,
	cky Mineral (S1)			ese Masses (F12	2) <b>(I RR N</b>		her (Explain in Re	( )
_	eyed Matrix (S4)		MLRA 136		-) (=:::::			
Sandy Red				<b>,,</b> ace (F13) <b>(MLRA</b>	122 136	) <sup>3</sup> Indica	tors of hydrophytic	r vegetation and
Stripped N				odplain Soils (F		-	tland hydrology m	-
Dark Surfa				Material (F21) <b>(M</b>	, <b>.</b>		less disturbed or p	•
					LNA 127,	147, 140) un	less disturbed of p	bioblematic.
	yer (if observed):	-1						
Type:	Grav					Undria Cail Dresant	2	
Depth (inc	nes):	6				Hydric Soil Present	? Yes	NoX
oils have bee	en significantly distur	bed from p	ast land use a sur	ace coal mine.				

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R			OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center		City/County: Martin	Sampling Date: 08/11/2024
Applicant/Owner: Lynn Bark Energy Ce	enter, LLC		State: KY Sampling Point: UP012
Investigator(s): M. Johnson, T. Parrish		Section, Township, Range: N/A	
Landform (hillside, terrace, etc.): Rise		ocal relief (concave, convex, none	
	Lat: 37.793	·	
Subregion (LRR or MLRA): LRR N		0	64030 Datum: NAD83 NWI classification: N/A
Soil Map Unit Name: FiD - Fiveblock, Fairp	-		
Are climatic / hydrologic conditions on the si			No (If no, explain in Remarks.)
Are Vegetation, SoilX , or Hydro			mstances" present? Yes X No
Are Vegetation, Soil, or Hydr	ologynaturally prob	blematic? (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 X	Is the Sampled Area	
Hydric Soil Present?	Yes No X	within a Wetland?	Yes NoX
Wetland Hydrology Present?	Yes No X		
Upland point assoicated with Wetland 012.	Sons have been significan	ity disturbed from past land use a	a sunace coar mine.
HYDROLOGY			
Wetland Hydrology Indicators:		Sec	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)			Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)			Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)			Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3)		_Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)		_Dry-Season Water Table (C2) Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3)	Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)			Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)			
Water-Stained Leaves (B9) Microtopographic Relief (D4)			
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No X Depth (incl		
Water Table Present? Yes	No X Depth (incl		
Saturation Present? Yes	No X Depth (incl	hes): Wetland Hydr	rology Present? Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, m	onitoring well aerial photo	ns previous inspections) if availa	hle.
Describe Recorded Data (stream gauge, m	ontoring weil, achai photo		bic.
Remarks:			
Nellaiks.			

# **VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: UP012

<u>Tree Stratum</u> (Plot size: 30 )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant
4				Species Across All Strata: 1 (B)
5.				Percent of Dominant Species
6 7.				That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet:
/·	;	=Total Cover		Total % Cover of: Multiply by:
50% of total cover:		of total cover:		$\frac{1}{\text{OBL species}}  0 \qquad \text{x1} = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $0 \times 2 = 0$
1,				FAC species 15 x 3 = 45
2.				FACU species 75 x 4 = 300
3.				UPL species 0 x 5 = 0
4.				Column Totals: 90 (A) 345 (B)
5.				Prevalence Index = B/A = 3.83
6.				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
8.				2 - Dominance Test is >50%
9.				3 - Prevalence Index is ≤3.0 <sup>1</sup>
		=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:	20%	of total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Lespedeza cuneata	65	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
2. Solanum carolinense	10	No	FACU	present, unless disturbed or problematic.
3. Coleataenia anceps	5	No	FAC	Definitions of Four Vegetation Strata:
4. Arthraxon hispidus	10	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5				more in diameter at breast height (DBH), regardless of
6				height.
7				Sapling/Shrub – Woody plants, excluding vines, less
8				than 3 in. DBH and greater than or equal to 3.28 ft
9				(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	90 =	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover: 45		of total cover:	18	height.
Woody Vine Stratum (Plot size: 30 )	2070		10	
1.				
2		·		
2		·		
4 5				
· · · · · · · · · · · · · · · · · · ·	,	=Total Cover		Hydrophytic
50% of total cover:		of total cover:		Vegetation Present? Yes No X
Remarks: (Include photo numbers here or on a separ	ate sneet.)			

Depth	Matrix		Redo	k Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rei	marks
0-6	10YR 4/3	100					Loamy/Clay	/ey	Sandy Loan	n
		<u> </u>								
Type: C=C	oncentration, D=Dep	etion, RM=	Reduced Matrix, N	1S=Mas	ked Sand	Grains.	<sup>2</sup> L	ocation: PL=	Pore Lining,	M=Matrix.
lydric Soil										atic Hydric Soils
Histosol	(A1)		Polyvalue Be	low Su	face (S8)	(MLRA 1	47, 148)	2 cm I	/luck (A10) <b>(N</b>	ILRA 147)
Histic Ep	pipedon (A2)		Thin Dark Su	urface (S	69) <b>(MLR</b>	A 147, 14	8)	Coast	Prairie Redo	(A16)
Black Hi	stic (A3)		Loamy Muck	y Miner	al (F1) <b>(N</b>	LRA 136	)	(ML	RA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matri	x (F2)			Piedm	ont Floodplai	n Soils (F19)
Stratified	Layers (A5)		Depleted Ma	trix (F3)	. ,			(ML	RA 136, 147)	
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface	(F6)			Red P	arent Materia	l (F21)
Depleted	d Below Dark Surface	e (A11)	Depleted Da	rk Surfa	ce (F7)			(out	side MLRA 1	27, 147, 148)
 Thick Da	ark Surface (A12)	<b>,</b>	Redox Depre		. ,			Very S	hallow Dark	Surface (F22)
Sandy M	lucky Mineral (S1)		Iron-Mangan	ese Ma	sses (F12	2) (LRR N		Other	(Explain in Re	emarks)
Sandy G	Bleyed Matrix (S4)		MLRA 136	5)						
Sandy R	ledox (S5)		Umbric Surfa	ace (F13	B) (MLRA	122, 136	)	<sup>3</sup> Indicators	of hydrophyt	ic vegetation and
Stripped	Matrix (S6)		Piedmont Flo	•	, .					nust be present,
Dark Su	rface (S7)		Red Parent I					unless	disturbed or	problematic.
Restrictive	Layer (if observed):									
Type:	Grav	vel								
Depth (ii	nches):	6					Hydric Soi	Present?	Yes	No X

Soils have been significantly disturbed from past land use a surface coal mine.

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; t	ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Lynn Bark Solar Project		City/County: Inez / Martin	Sampling Date: 08-11-2024
Applicant/Owner: Lynn Bark Energy Fac	cility, LLC		State: KY Sampling Point: up013
Investigator(s): Ralph Schuler, Andrew Jask	owiak	Section, Township, Range:	N/A
Landform (hillside, terrace, etc.): Flat		ocal relief (concave, convex, none	e): Convex Slope (%): 3%
Subregion (LRR or MLRA): LRR N	Lat: 37.786		
<b>.</b>		Ŭ	NWI classification: None
Soil Map Unit Name: Fiveblock, Fairpoint a		-	
Are climatic / hydrologic conditions on the sit			No (If no, explain in Remarks.)
Are Vegetation N, Soil Y, or Hydr	ology <u>N</u> significantly d	isturbed? Are "Normal Circur	nstances" present? Yes <u>N</u> No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydro	ology <u>N</u> naturally prob	lematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attack	n site map showing	sampling point locations	, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area	No. V
Hydric Soil Present?	Yes No X	within a Wetland?	Yes <u>No X</u>
Wetland Hydrology Present?	Yes <u>No X</u>		
HYDROLOGY Wetland Hydrology Indicators:		<u>Se</u>	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is requi	red; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O	dor (C1)	Drainage Patterns (B10)
Saturation (A3)		res on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce	. ,	Dry-Season Water Table (C2)
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (		_ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Re	marks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B	7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	")	—	Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No X Depth (incl	nes):	
Water Table Present? Yes	No X Depth (inch		
Saturation Present? Yes	No X Depth (incl		rology Present? Yes No X
(includes capillary fringe)			
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	, previous inspections), if availab	le:
Dementer			
Remarks:			

# VEGETATION (Four Strata) - Use scientific names of plants

VEGETATION (Four Strata) - Use scien	ntific names of	of plants.		Sampling	Point: up013
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Juniperus virginiana	5	Yes	FACU	Number of Dominant Species	
2. Acer saccharum	5	Yes	FACU	That Are OBL, FACW, or FAC	: <u> </u>
3. Prunus avium	4	Yes	UPL	Total Number of Dominant	
4. Robinia pseudoacacia	5	Yes	FACU	Species Across All Strata:	8 (B)
5.				Percent of Dominant Species	
6.				That Are OBL, FACW, or FAC	: <u>12.5%</u> (A/B)
7				Prevalence Index worksheet	:
	19	=Total Cover		Total % Cover of:	Multiply by:
50% of total cover:	10 20%	of total cover:	4	OBL species 0	x 1 = 0
Sapling/Shrub Stratum (Plot size: 15'	)			FACW species 0	x 2 = 0
1. Prunus avium	4	No	UPL	FAC species 4	x 3 = 12
2. Elaeagnus umbellata	25	Yes	UPL	FACU species 35	x 4 = 140
3. Rubus idaeus	2	No	FAC	UPL species 33	x 5 = 165
4.	_			Column Totals: 72 (	A) 317 (B
5.				Prevalence Index =	B/A = 4.40
6.				Hydrophytic Vegetation Indi	cators:
7.				1 - Rapid Test for Hydroph	
8.				2 - Dominance Test is >50	, ,
9.				3 - Prevalence Index is ≤3	
···	31	=Total Cover		4 - Morphological Adaptat	
50% of total cover:		of total cover:	7	data in Remarks or on a	· · · ·
Herb Stratum (Plot size: 5' )				Problematic Hydrophytic \	(egetation <sup>1</sup> (Explain)
1. Elephantopus carolinianus	15	Yes	FACU		,
2.		100	17100	<sup>1</sup> Indicators of hydric soil and w present, unless disturbed or pr	
3.				Definitions of Four Vegetation	
а					
4				Tree – Woody plants, excludir more in diameter at breast hei	
5.				height.	gin (DDH), regardless of
6.					
7.				Sapling/Shrub – Woody plant than 3 in. DBH and greater tha	-
8.				m) tall.	
9.					
10.				Herb – All herbaceous (non-w of size, and woody plants less	,,,
11					
		=Total Cover		Woody Vine – All woody vines height.	s greater than 3.28 ft in
50% of total cover:	8 20%	of total cover:	3		
Woody Vine Stratum (Plot size:)					
1. Campsis radicans	2	Yes	FAC		
2. Lonicera japonica	5	Yes	FACU		
3					
4.					
5				Hydrophytic	
	7	=Total Cover		Vegetation	
50% of total cover:	4 20%	of total cover:	2	Present? Yes	No X
Remarks: (Include photo numbers here or on a sep	arate sheet.)			•	

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Sampling Point: up013
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Profile Desci Depth	ription: (Describe t Matrix	o the dept	h needed to document th Redox Featu		mirm the absence of in	aicators.)	
(inches)	Color (moist)	%	Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	Texture	Rem	arks
0-8	10YR 5/4	100			Loamy/Clayey	sandy loam	
					Louny/ordycy	Sundy Iourn	
		·					
		etion, RM=	Reduced Matrix, MS=Mask	ked Sand Grains.		PL=Pore Lining, M	
Hydric Soil II Histosol (			Polyvalue Below Su			ors for Problemation m Muck (A10) (ML	
	pedon (A2)		Thin Dark Surface (			ast Prairie Redox (	-
Black His	tic (A3)		Loamy Mucky Miner	ral (F1) <b>(MLRA 13</b>	6) (	MLRA 147, 148)	
, ,	n Sulfide (A4)		Loamy Gleyed Matri Depleted Matrix (F3	. ,		edmont Floodplain	Soils (F19)
	Layers (A5) ck (A10) <b>(LRR N)</b>		Redox Dark Surface	, ,		MLRA 136, 147) d Parent Material (	E21)
	Below Dark Surface	(Δ11)	Depleted Dark Surface			outside MLRA 12	
	rk Surface (A12)	(,,,,)	Redox Depressions			ry Shallow Dark Su	
	ucky Mineral (S1)		Iron-Manganese Ma			her (Explain in Ren	
	eyed Matrix (S4)		MLRA 136)				
Sandy Re			Umbric Surface (F1	3) (MLRA 122, 13	6) <sup>3</sup> Indica	tors of hydrophytic	vegetation and
	Matrix (S6)		Piedmont Floodplair			tland hydrology mu	
Dark Sur			Red Parent Material			less disturbed or pl	-
	ayer (if observed):			(* = *) (***************			
Type:	Gravel						
Depth (in	ches):	8			Hydric Soil Present	? Yes	No X
Remarks:	,						
Struck rock at	t 8".						

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; 1	ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Lynn Bark Solar Project		City/County: Inez / Martin	Sampling Date: 08-10-2024
Applicant/Owner: Lynn Bark Energy Fac	cility, LLC		State: KY Sampling Point: up016
Investigator(s): Ralph Schuler, Andrew Jask	-	Section, Township, Range:	
			): Concave Slope (%): 2%
Landform (hillside, terrace, etc.): Flat		ocal relief (concave, convex, none	
Subregion (LRR or MLRA): LRR N	Lat: <u>37.785</u>	°	
Soil Map Unit Name: Fiveblock, Fairpoint a	nd Kaymine 6-30% slopes	stoney	NWI classification: None
Are climatic / hydrologic conditions on the sit	e typical for this time of yea	ar? Yes <u>X</u> I	No (If no, explain in Remarks.)
Are Vegetation N, Soil Y, or Hydr	ology <u>N</u> significantly d	isturbed? Are "Normal Circun	nstances" present? Yes N No
Are Vegetation N , Soil N , or Hydr	ology N naturally prob	lematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS - Attack	n site man showing	sampling point locations	transects, important features, etc.
	. end map showing a		
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area	
Hydric Soil Present?	Yes X No	within a Wetland?	Yes <u>No X</u>
Wetland Hydrology Present?	Yes No X		
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Sec	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is requi	red; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide O		Drainage Patterns (B10)
Saturation (A3)		res on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Sediment Deposits (B2)	Presence of Reduce	on in Tilled Soils (C6)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re		Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B	7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes		nes):	
Water Table Present? Yes	No X Depth (incl		
Saturation Present? Yes	No X Depth (incl	nes): Wetland Hydr	ology Present? Yes <u>No X</u>
(includes capillary fringe)	onitaring wall parial photos	n provious increations) if availabl	
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos	s, previous inspections), ir availabi	e:
Remarks:			

	Absolute	Dominant	Indicator				
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test	worksheet:		
·				Number of Domir	ant Species		
				That Are OBL, FA	CW, or FAC:	0	(A)
				Total Number of I	Dominant		
				Species Across A	All Strata:	1	(B)
				Percent of Domin	ant Species		
				That Are OBL, FA	ACW, or FAC:	0.0%	(A/
				Prevalence Inde	x worksheet:		
		=Total Cover		Total % Cov	ver of:	Multiply b	y:
50% of total cover:	20%	of total cover:		OBL species	0 x	1 =0	)
pling/Shrub Stratum (Plot size:	)			FACW species	0 x	2 =0	)
				FAC species	0 x	3 = 0	)
				FACU species	105 x	4 = 42	20
				UPL species	0 x	5 = 0	)
				Column Totals:	105 (A)	42	20
				_	nce Index = B/A		
				Hydrophytic Veg		-	-
					st for Hydrophyti		
					ce Test is >50%	e vegetation	
					the index is $\leq 3.0^{1}$		
		=Total Cover			gical Adaptation:		unnorti
F0% of total approxim		of total cover:		· · ·	marks or on a se		
50% of total cover:	2076	or total cover.			Hydrophytic Veg	•	,
erb Stratum (Plot size: 5')							biain)
A	00		FACU		nydropnytic veg		,
Andropogon virginicus	80	Yes	FACU	<sup>1</sup> Indicators of hyd	ric soil and wetla	and hydrolog	,
Lespedeza cuneata	10	No	FACU	<sup>1</sup> Indicators of hyd present, unless d	ric soil and wetla isturbed or probl	and hydrolog lematic.	,
Lespedeza cuneata Solanum carolinense	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd	ric soil and wetla isturbed or probl	and hydrolog lematic.	,
Lespedeza cuneata	10	No	FACU	<sup>1</sup> Indicators of hyd present, unless d Definitions of Fo Tree – Woody pla	iric soil and wetla isturbed or probl pur Vegetation s ants, excluding v	and hydrolog lematic. <b>Strata:</b> vines, 3 in. (7	y must 7.6 cm)
Lespedeza cuneata Solanum carolinense	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter	iric soil and wetla isturbed or probl pur Vegetation s ants, excluding v	and hydrolog lematic. <b>Strata:</b> vines, 3 in. (7	y must
Lespedeza cuneata Solanum carolinense	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d Definitions of Fo Tree – Woody pla	iric soil and wetla isturbed or probl pur Vegetation s ants, excluding v	and hydrolog lematic. <b>Strata:</b> vines, 3 in. (7	y must
Lespedeza cuneata Solanum carolinense	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> –	Iric soil and wetla isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, o	and hydrolog lematic. Strata: /ines, 3 in. (7 : (DBH), rega	y must 7.6 cm) Irdless
Lespedeza cuneata Solanum carolinense	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar	Iric soil and wetla isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, o	and hydrolog lematic. Strata: /ines, 3 in. (7 : (DBH), rega	y must 7.6 cm) Irdless
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> –	Iric soil and wetla isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, o	and hydrolog lematic. Strata: /ines, 3 in. (7 : (DBH), rega	y must 7.6 cm) Irdless
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbace	ric soil and wetla isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o	and hydrolog lematic. Strata: vines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re	y must 7.6 cm) irdless nes, les 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10	No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall.	ric soil and wetla isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o	and hydrolog lematic. Strata: vines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re	y must 7.6 cm) irdless nes, les 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris		No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbace	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10 5 	No No No	FACU FACU	<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata         Solanum carolinense         Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata Solanum carolinense Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata         Solanum carolinense         Prunella vulgaris	10 10 5 	No No No Total Cover	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata         Solanum carolinense         Prunella vulgaris	10 10 5 	No No No Total Cover of total cover:	FACU FACU FACU	<ul> <li><sup>1</sup>Indicators of hyd present, unless d</li> <li>Definitions of For Tree – Woody pla more in diameter height.</li> <li>Sapling/Shrub – than 3 in. DBH ar m) tall.</li> <li>Herb – All herbac of size, and wood</li> <li>Woody Vine – All</li> </ul>	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles
Lespedeza cuneata     Solanum carolinense     Prunella vulgaris		No No No Total Cover	FACU FACU FACU	<sup>1</sup> Indicators of hyd present, unless d Definitions of Fo Tree – Woody pla more in diameter height. Sapling/Shrub – than 3 in. DBH ar m) tall. Herb – All herbac of size, and wood Woody Vine – All height.	Iric soil and weth isturbed or probl our Vegetation s ants, excluding v at breast height Woody plants, e nd greater than o ceous (non-wood by plants less that	and hydrolog lematic. Strata: /ines, 3 in. (7 (DBH), rega excluding vin or equal to 3. dy) plants, re an 3.28 ft tall	y must 7.6 cm) ardless 28 ft gardles

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Sampling Point: up016
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Depth (inches)			R I				firm the absence			
· · · ·	Matrix Color (moist)	%	Color (moist)	ox Feature %	es Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rer	narks
0-10	10YR 5/2	80	10YR 5/8	30	RM	M	Loamy/Clayey		sandy loai	m
			10YR 3/2	20	C	PL				
			10TK 3/2	20						
				·						
				·						
Type: C=Con	centration. D=Deple	etion. RM:	=Reduced Matrix, M	IS=Maske	ed Sand	Grains.	<sup>2</sup> Locat	ion: PL=F	Pore Lining, I	M=Matrix.
Hydric Soil Ind	, ,									atic Hydric Soils
Histosol (A	(1)		Polyvalue B	elow Surf	ace (S8)	(MLRA 1	147, 148)	2 cm M	uck (A10) <b>(N</b>	ILRA 147)
Histic Epip			Thin Dark S	urface (S	9) <b>(MLR</b>	A 147, 14	.8)	Coast F	Prairie Redox	: (A16)
Black Histi	. ,		Loamy Muc		• • •	LRA 136	)	•	A 147, 148)	
, ,	Sulfide (A4)		Loamy Gley		: (F2)		_		nt Floodplair	n Soils (F19)
Stratified L	2 ( )		Depleted Ma	• • •				•	A 136, 147)	(== ()
	(A10) <b>(LRR N)</b>	( )	Redox Dark		. ,		_	_	rent Material	. ,
	Below Dark Surface	(A11)	Depleted Da		• •			•		27, 147, 148)
	Surface (A12)		Redox Depr	`	,					Surface (F22)
	cky Mineral (S1) yed Matrix (S4)		Iron-Mangar MLRA 13		ses (FI2		,		Explain in Re	marks)
Sandy Gle			Umbric Surf			122 136	) <sup>3</sup> Ir	dicatore (	of hydrophyti	c vegetation and
Stripped M			Piedmont Fl							nust be present,
Dark Surfa			Red Parent	•		<i>,</i> .			disturbed or	-
	yer (if observed):			matorial						
Туре:	<b>,</b>									
Depth (incl	hes):	10					Hydric Soil Pre	esent?	Yes >	< <u>No</u>

U.S. Army Corp WETLAND DETERMINATION DATA SHEET See ERDC/EL TR-12-9; the pro	– Eastern Mounta	ains and Piedmont Region	Requiremen	#: 0710-0024, Exp:11/30/2024 nt Control Symbol EXEMPT: AR 335-15, paragraph 5-2a)			
Project/Site: Lynn Bark Solar Project		City/County: Inez / Martir	1	Sampling Date: 08-09-2024			
Applicant/Owner: Lynn Bark Energy Facility, LL	State: KY	Sampling Point: <u>Up018</u>					
Investigator(s): Ralph Schuler, Andrew Jaskowiak							
Landform (hillside, terrace, etc.): Flat	Lo	- cal relief (concave, convex, no	one): none	Slope (%): 0-2			
Subregion (LRR or MLRA): LRR N	Lat: 37.786			Datum: NAD 83			
Soil Map Unit Name: Fiveblock, Fairpoint and Kayn				IWI classification: None			
Are climatic / hydrologic conditions on the site typica		-		, explain in Remarks.)			
, , , , , , , , , , , , , , , , , , , ,	2						
Are Vegetation N , Soil Y , or Hydrology			umstances" preser				
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	N naturally proble	ematic? (If needed, expla	iin any answers in F	Remarks.)			
SUMMARY OF FINDINGS – Attach site r	map showing s	sampling point location	ns, transects, ii	mportant features, etc.			
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes         Remarks:       Yes	No X No No X No X	Is the Sampled Area within a Wetland?	Yes	No X			
HYDROLOGY							
Wetland Hydrology Indicators:		<u>S</u>	-	s (minimum of two required)			
Primary Indicators (minimum of one is required; che			Surface Soil Cra				
	rue Aquatic Plants		_ , , ,	ated Concave Surface (B8)			
	ydrogen Sulfide Od		Drainage Patter				
· · · ·	resence of Reduce	res on Living Roots (C3)	Moss Trim Lines Dry-Season Wa				
		on in Tilled Soils (C6)	Crayfish Burrow	( )			
	hin Muck Surface (			le on Aerial Imagery (C9)			
	ther (Explain in Re	· · · -		ssed Plants (D1)			
Iron Deposits (B5)		-,	Geomorphic Po	( )			
Inundation Visible on Aerial Imagery (B7)		_					
			Shallow Aquitar	d (D3)			
Water-Stained Leaves (B9)		-	Shallow Aquitar Microtopographi				

Field	Observations:
Field	Observations:

Field Observations:						
Surface Water Present?	Yes	No <u>X</u>	Depth (inches):			
Water Table Present?	Yes	No X	Depth (inches):			
Saturation Present?	Yes	No <u>X</u>	Depth (inches):	Wetland Hydrology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (s	stream gauge, m	onitoring well	, aerial photos, previous insp	ections), if available:		

Remarks:

# **VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: Up018

Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	70 00001	Opecies:	Otatus	
2.				Number of Dominant Species That Are OBL, FACW, or FAC:(A)
3.				Total Number of Dominant
4 5				Species Across All Strata: <u>2</u> (B)
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
7.				Prevalence Index worksheet:
		Total Cover		Total % Cover of: Multiply by:
50% of total cover:	20%	of total cover:		OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size:	)			FACW species 0 x 2 = 0
1. Acer rubrum	2	No	FAC	FAC species 22 x 3 = 66
2. Elaeagnus umbellata	2	No	UPL	FACU species 20 x 4 = 80
3.				UPL species 4 x 5 = 20
4.				Column Totals: 46 (A) 166 (B)
5.				Prevalence Index = B/A = 3.61
6.				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
8.				2 - Dominance Test is >50%
9.				$3 - Prevalence Index is \leq 3.0^1$
	4 :	Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:		of total cover:	1	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: )	2070		<u>.</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Daucus carota	2	No	UPL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
2. Rubus argutus	20	Yes	FACU	present, unless disturbed or problematic.
3. Vernonia gigantea	20	Yes	FAC	Definitions of Four Vegetation Strata:
4.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
5.				more in diameter at breast height (DBH), regardless of
6.				height.
7.				Sapling/Shrub – Woody plants, excluding vines, less
8.				than 3 in. DBH and greater than or equal to 3.28 ft
9.				(1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
	42	Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover: 2	1 20%	of total cover:	9	height.
Woody Vine Stratum (Plot size:				
1.				
2.				
3.				
4.				
5.				
		Total Cover		Hydrophytic
50% of total cover:		of total cover:		Vegetation Present? Yes <u>No X</u>
Remarks: (Include photo numbers here or on a sepa	arato shoot )			
Remarks. (include photo numbers here of on a sepa	arate sheet.)			

L

Profile Descr	iption: (Describe t	o the dep	oth needed to docu	ument tl	ne indica	ator or co	onfirm the ab	sence of ind	licators.)		
Depth	Matrix		Redo	k Featur	es						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	·	R	emark	S
0-16	10YR 4/2	95	10YR 2/1	5	С	PL	Loamy/Cla	уеу	Sandy Loa	am	
<sup>1</sup> Type: C=Co	ncentration, D=Deple	etion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	d Grains.	<sup>2</sup> L	ocation: PL	=Pore Lining	g, M=M	atrix.
Hydric Soil Ir	ndicators:							Indicators	s for Proble	matic	Hydric Soils <sup>3</sup> :
Histosol (	A1)		Polyvalue Be	low Sur	face (S8	) (MLRA	147, 148)	2 cm	Muck (A10)	(MLRA	× 147)
Histic Epi	pedon (A2)		Thin Dark Su	urface (S	9) <b>(MLR</b>	A 147, 14	48)	Coast	Prairie Red	ox (A1	6)
Black His	tic (A3)		Loamy Muck	y Minera	al (F1) <b>(N</b>	ILRA 136	6)	(ML	RA 147, 14	B)	
Hydrogen	Sulfide (A4)		Loamy Gleye	ed Matrix	k (F2)			Piedm	nont Floodpl	ain Soi	ls (F19)
Stratified	Layers (A5)		X Depleted Ma	trix (F3)				(ML	RA 136, 14	7)	
2 cm Muc	k (A10) (LRR N)		Redox Dark	Surface	(F6)			Red F	arent Mater	ial (F2	1)
Depleted	Below Dark Surface	(A11)	Depleted Da	rk Surfa	ce (F7)			(ou	tside MLRA	127, 1	47, 148)
Thick Dar	k Surface (A12)	· · ·	Redox Depre	essions	(F8)			Very S	Shallow Darl	Surfa د	ce (F22)
	ucky Mineral (S1)		Iron-Mangan		. ,	2) (LRR N	٨.		(Explain in		. ,
	eyed Matrix (S4)					-, (	-,		(		/
Sandy Re			Umbric Surfa	,		122, 136	5)	<sup>3</sup> Indicators	s of hydroph	vtic ve	getation and
	Matrix (S6)		Piedmont Flo						nd hydrology		0
Dark Surf	. ,		Red Parent I	•		, .			s disturbed o		
	ayer (if observed):				( ) (		, , <b>.</b> ,				
Type:	ayer (il observeu).										
Depth (inc	ches):						Hvdric So	I Present?	Yes	Х	No
Remarks:	-/-						1				
nemarks.											

WETLAND DETERMINATION DATA	ny Corps of Engineers SHEET – Eastern Mountains and Pie the proponent agency is CECW-(		OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)		
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Ce Investigator(s): M. Johnson, T. Parrish	enter, LLC	-	Sampling Date: 08/10/202 State: KY Sampling Point: UP019		
Landform (hillside, terrace, etc.):       Rise         Subregion (LRR or MLRA):       LRR N         Soil Map Unit Name:       FiF—Fiveblock, Fairp         Are climatic / hydrologic conditions on the s         Are Vegetation       , Soil       X , or Hydrologic	Local relief (con Lat: <u>37.799489</u> point, and Kaymine soils, 30 to 80 percent ite typical for this time of year?	State:       KY         Section, Township, Range:       N/A         Local relief (concave, convex, none):       Convex         Lat:       37.799489       Long:         mine soils, 30 to 80 percent slopes, stony       NWI classification         his time of year?       Yes       X         significantly disturbed?       Are "Normal Circumstances" present?         naturally problematic?       (If needed, explain any answers in Rem         showing sampling point locations, transects, import         No       X         No       X         No       X         No       X         No       X         No       X         Is the Sampled Area         within a Wetland?       Yes			
Are Vegetation, Soil, or Hyd SUMMARY OF FINDINGS – Attac			. ,		
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X within a W	-	Yes NoX		
HYDROLOGY					
Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on Aerial Imagery (Mater-Stained Leaves (B9)         Aquatic Fauna (B13)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3)	condary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)		
Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Describe Recorded Data (stream gauge, n         Remarks:       Remarks:	No X Depth (inches): No X Depth (inches): No X Depth (inches): nonitoring well, aerial photos, previous ins	Wetland Hydr	rology Present? Yes No X		

	Absolute	Dominant	Indicator				
ee Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test w	orksheet:		
				Number of Dominar	nt Species		
				That Are OBL, FAC	W, or FAC:	0	(A)
				Total Number of Do	minant		
				Species Across All	Strata:	1	(B)
				Percent of Dominar	t Species		
	_			That Are OBL, FAC		0.0%	(A/E
				Prevalence Index	worksheet:		
		=Total Cover		Total % Cover	r of:	Multiply by:	:
50% of total cover:		of total cover:		OBL species	0 x 1 =		
apling/Shrub Stratum (Plot size: 15	) 2070			FACW species		-	
	_)			· ·			
				FAC species	0 x 3 =	-	
				FACU species	90 x 4 =		
				UPL species	0 x 5 =	= 0	
				Column Totals:	90 (A)	360	)(E
				Prevalence	e Index = B/A =	4.00	
				Hydrophytic Veget	ation Indicators	:	
				1 - Rapid Test f	or Hydrophytic V	egetation	
				2 - Dominance			
				3 - Prevalence	Index is ≤3.0 <sup>1</sup>		
		=Total Cover			al Adaptations <sup>1</sup> (	Provide su	pportin
50% of total cover:		of total cover:			arks or on a sepa		
	2070	or total cover.			drophytic Vegeta		,
erb Stratum (Plot size: 5)	00	V	FACU		diophylic vegela	uon (⊏xpia	ann)
Lespedeza cuneata	80	Yes	FACU	<sup>1</sup> Indicators of hydric		, ,,	must t
Solidago altissima	10	No	FACU	present, unless dist	•		
				Definitions of Four	r Vegetation Stra	ata:	
				Tree - Woody plant			
				more in diameter at	breast height (D	BH), regard	dless c
				height.			
				Sapling/Shrub – W	oody plants, exc	luding vine	s, less
				than 3 in. DBH and		•	
				m) tall.			
 D.				Herb – All herbaced	ous (non-woody)	plants reg	ardless
 1.				of size, and woody			
	90	=Total Cover		Woody Vine – All w		tor than 2 0	10 ft in
			10	height.	woody villes grea		.o It III
50% of total cover:	45 20%	of total cover:	18	noight.			
/oody Vine Stratum (Plot size: 30 )							
·							
		=Total Cover		Hydrophytic			
E00% of total action		of total cover:		Vegetation Present? Y		lo X	
50% of total cover:	20%	or total cover		I FIESEIIL I	'es N		

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Sampling Point: UP019
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Trofile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)         Depth       Matrix       Redox Features         (nches)       Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> Texture       Remarks         0-6       2.5YR 3/3       100		scribe to the depth	needed to docume	nt the indicator	or confirm	the absence of it	dicators.)	
inches)       Color (moist)       %       Type <sup>1</sup> Loc <sup>2</sup> Texture       Remarks         0-6       2.5YR 3/3       100	Depth I							
0-6       2.5YR 3/3       100       Loamy/Clayey       sandy loam         0-6       2.5YR 3/3       100       Loamy/Clayey       sandy loam         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Sc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147, 148)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 147, 148)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F7)       (outside MLRA 147, 148)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Sandy Gleyed Matrix (S4)       MLRA 136)       Umbric Surface (F12) (MLRA 142, 136) <sup>3</sup> Indicators of hydrophytic vegetation a wetland hydrology must be presen         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148) <sup>3</sup> Indicators of hydrophytic vegetation a wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 148) <sup>3</sup> Indicators of hydrophytic vegetation a wetland hydrology must be presen <tr< th=""><th></th><th></th><th></th><th></th><th>Loc<sup>2</sup></th><th>Texture</th><th>Rem</th><th>arks</th></tr<>					Loc <sup>2</sup>	Texture	Rem	arks
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric SC       Indicators for Problematic Hydric SC         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F7)       Red Parent Material (F21)         0 Epleted Cark Surface (A12)       Redox Dark Surface (F7)       Red Parent Material (F21)         Sandy Medox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation a         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation a         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation a         wetland hydrology must be presen       Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation a         Type:       Gravel       Piedmont Floodplain Soils (F19) (MLRA 127, 1								
Hydric Soil Indicators:       Indicators for Problematic Hydric Sol         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)       3Indicators of hydrophytic vegetation al wetland hydrology must be present         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present         Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present	<u>0-6</u> 2.5YR	3/3 100			<u> </u>	oamy/Clayey	sandy loan	1
hydric Soil Indicators:       Indicators for Problematic Hydric Soc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Very Shallow Dark Surface (F22)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation al wetland hydrology must be presen         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       unless disturbed or problematic.         Type:       Gravel       Piedmont Soll (F21) (MLRA 127, 147, 148)       Metra 19, 12, 136         Depth (inches):       6       Hydric Soil Present?       Yes       No       x								
hydric Soil Indicators:       Indicators for Problematic Hydric Soc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation al wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Remarks:       6       Hydric Soil Present?       Yes       No       x								
hydric Soil Indicators:       Indicators for Problematic Hydric Soc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation al wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Remarks:       6       Hydric Soil Present?       Yes       No       x								
hydric Soil Indicators:       Indicators for Problematic Hydric Soc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Very Shallow Dark Surface (F22)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation al wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Remarks:       6       Hydric Soil Present?       Yes       No       x								
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147, 148)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation at wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       6       Hydric Soil Present?       Yes       No       x         Remarks:       6       Hydric Soil Present?       Yes       No       x	Type: C=Concentration,	D=Depletion, RM=R	educed Matrix, MS=	Masked Sand G	rains.	<sup>2</sup> Location:	PL=Pore Lining, N	1=Matrix.
Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation at wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       MLRA 192       No x         Depth (inches):       6       Hydric Soil Present?       Yes       No x	lydric Soil Indicators:					Indica	ators for Problema	tic Hydric Soils
Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an wetland hydrology must be presen         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       fravel       Hydric Soil Present?       Yes       No       x         Remarks:       8       Hydric Soil Present?       Yes       No       x	Histosol (A1)		Polyvalue Belov	w Surface (S8) <b>(</b>	MLRA 147, <sup>-</sup>	<b>148)</b> 2	cm Muck (A10) (MI	LRA 147)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation at wetland hydrology must be present         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       6       Hydric Soil Present?       Yes       No       x         Remarks:       6       Hydric Soil Present?       Yes       No       x						C		(A16)
Stratified Layers (A5)       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation at wetland hydrology must be present         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel       Hydric Soil Present?       Yes       No       x         Reemarks:       6       Hydric Soil Present?       Yes       No       x		.)			KA 130)	Р	,	Soils (F19)
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation an vetamothydrology must be presen         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       for avel       hydric Soil Present?       Yes       No       x         Remarks:       6       Hydric Soil Present?       Yes       No       x	, , ,	,		( )				
Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       3Indicators of hydrophytic vegetation an         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       for avel       Very Shallow Dark Surface (S0)       No x         Remarks:       6       Hydric Soil Present?       Yes       No x	2 cm Muck (A10) (LR	RN)	Redox Dark Su	rface (F6)		R	ed Parent Material	(F21)
Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       3Indicators of hydrophytic vegetation an         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel          Depth (inches):       6       Hydric Soil Present?       Yes       No       x         Remarks:       Kemarks:       Kemarks       Kemarks       Kemarks       Kemarks       Kemarks	Depleted Below Dark	Surface (A11)	Depleted Dark	Surface (F7)			(outside MLRA 12	7, 147, 148)
Sandy Gleyed Matrix (S4)       MLRA 136)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       x         Remarks:       Kemarks:       Kemarks       Kemarks       Kemarks       Kemarks       Kemarks							-	
Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation at piedmont Floodplain Soils (F19) (MLRA 148)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel          Depth (inches):       6       Hydric Soil Present?       Yes Nox         Remarks:       Kestrictive Layer (Kestrictive Layer (Kestri				e Masses (F12)	(LRR N,	0	ther (Explain in Rer	marks)
Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       x         Remarks:       Remarks:       Remarks       <		(S4)				3		
Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Gravel         Depth (inches):       6       Hydric Soil Present?       Yes       No       x         Remarks:       Kemarks:       Kemarks       <								
Type:     Gravel       Depth (inches):     6       Remarks:     Hydric Soil Present?					, .	-		-
Type:     Gravel       Depth (inches):     6       Hydric Soil Present?     Yes     No     x	. ,			lenai (F21) <b>(IVILI</b>	<b>XA 127, 147</b>	, <b>140)</b> ui	liess disturbed of p	noplematic.
Depth (inches):         6         Hydric Soil Present?         Yes         No         x           Remarks:		-						
Remarks:						vdric Soil Proson	t2 Voc	No v
	Deptil (ilicites).	0				yunc Son Freser		
	Remarks:		evious operations of	surface coal mi	<u> </u>	yunc son Freser		

WETLAND DETERMINAT See ERDC/EL	ION DATA SI	HEET – Ea		ains and Pied	•		10-0024, Exp:11/ ntrol Symbol EXI 35-15, paragraph	EMPT:
Project/Site: Lynn Bark Solar	Project			City/Count	ty: Inez / Martin	s	ampling Date:	08-09-2024
Applicant/Owner: Lynn Ba	rk Energy Faci	lity. LLC				State: KY S	ampling Point:	Up020
Investigator(s): Ralph Schuler,				Section, Town	shin Range		1 5	
		Jwiak		-		N	01	0%
Landform (hillside, terrace, etc.					ave, convex, none		Slope (%):	3%
Subregion (LRR or MLRA): LF			Lat: 37.785		Long: -82.5			NAD 83
Soil Map Unit Name: Handsho	e-Fedscreek-S	Shelocta 30	)-80% slope, v	ery stony		NWI classification	n: None	
Are climatic / hydrologic condition	ons on the site	typical for	this time of yea	ar?	Yes X	No (If no, exp	lain in Remarks	s.)
Are Vegetation N , Soil	N , or Hydro	logy N	significantly d	isturbed? A	re "Normal Circun	nstances" present?	Yes X	No
Are Vegetation N, Soil	N, or Hydro	logy N	naturally prob	lematic? (I	f needed, explain	any answers in Rema	rks.)	
SUMMARY OF FINDING			-			-		os oto
SUMMART OF FINDING	5 – Allach	Site map	5 showing	sampling po	ont locations,	transects, impo		3, etc.
Hydrophytic Vegetation Prese	nt?	Yes	No X	Is the Samp	led Area			
Hydric Soil Present?		Yes	No X	within a Wet		Yes	No X	
Wetland Hydrology Present?		Yes	No X					
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)				dor (C1) res on Living Ro ed Iron (C4) ion in Tilled Soils (C7)	pots (C3)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Iron Deposits (B5)				mantoj		Stunted or Stressed Geomorphic Position		
Inundation Visible on Aeria	al Imagery (B7	.)				Shallow Aquitard (D3	. ,	
Water-Stained Leaves (BS	0,1,1					Microtopographic Re	lief (D4)	
Aquatic Fauna (B13)						FAC-Neutral Test (D		
Field Observations:								
Surface Water Present?	Yes	No <u>X</u>	Depth (incl	nes):				
Water Table Present?	Yes	No X						
Saturation Present?	Yes	No X	Depth (incl	nes):	Wetland Hydr	ology Present?	Yes	No X
(includes capillary fringe)								
Describe Recorded Data (strea	am gauge, moi	nitoring wel	l, aerial photos	s, previous inspe	ections), if availabl	e:		
Remarks:								

	Δbc	olute	Dominant	Indicator	T			)
Tree Stratum (Plot size:)		Cover	Species?	Status	Dominance Test	worksheet:		
. Platanus occidentalis	1	15	Yes	FACW	Number of Domir	ant Species		
2. Cercis canadensis		5	No	FACU	That Are OBL, FA		1	(A
. Liriodendron tulipifera	1	15	Yes	FACU	Total Number of I	- Dominant		
·. ·					Species Across A		4	(B
					Dereent of Domin	-		Ì
					Percent of Domin That Are OBL, FA		25.0%	(A
					Prevalence Inde	-		(
·		35 =	=Total Cover		Total % Cov		Multiply by	•
50% of total cover:			of total cover:	7	OBL species	0 x 1		
-	,	2070	or total cover.		FACW species	15 x 2		
		10	Vee		–	-	-	
Elaeagnus umbellata		10	Yes	UPL	FAC species		-	
					FACU species	<u>28</u> x 4	-	
					UPL species	10 x 5	-	
					Column Totals:	53 (A)	192	2
					Prevalei	nce Index = B/A =	= 3.62	
					Hydrophytic Veg	etation Indicato	rs:	
					1 - Rapid Tes	st for Hydrophytic	Vegetation	
					2 - Dominand	e Test is >50%		
					3 - Prevalenc	e Index is ≤3.0 <sup>1</sup>		
	1	10 =	=Total Cover		4 - Morpholog	gical Adaptations <sup>1</sup>	(Provide su	рро
50% of total cover:	5	20%	of total cover:	2	data in Re	marks or on a sep	parate sheet	)
lerb Stratum (Plot size:)					Problematic I	Hydrophytic Vege	tation <sup>1</sup> (Expl	ain)
Polystichum acrostichoides		8	Yes	FACU	<sup>1</sup> Indicators of hyd present, unless d			mus
					Definitions of Fo	our Vegetation St	trata:	
		_			Tree – Woody pla more in diameter			
					height.			
·					Sapling/Shrub –			
3					than 3 in. DBH ar m) tall.	nd greater than or	equal to 3.2	28 ft
0.					, Herb – All herbad	eous (non-woody	) plants rea	ardl
1.					of size, and wood	(	, i , u	aran
		8 =	=Total Cover		Woody Vine – A	l woody vines gre	ater than 3.2	28 ft
50% of total cover:	4	20%	of total cover:	2	height.			
Voody Vine Stratum (Plot size:	)							
···		<u> </u>	=Total Cover		Hydrophytic			
					Vegetation	M	N	
50% of total cover:		20%	of total cover:		Present?	Yes	No X	

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Sampling Point: Up020
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	ription: (Describe t	o the dept			licator	or conf	irm the absence of i	indicato	's.)		
Depth	Matrix			x Features	1	. 2			_		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Ty	ype <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	arks	
0-16	10YR 4/3	100				·	Loamy/Clayey		Silt loam, so	ome grav	vel
						·					
Type: C=Cc	oncentration, D=Deple	etion, RM=I	Reduced Matrix, M	S=Masked S	Sand Gr	ains.	<sup>2</sup> Location	: PL=Po	re Lining, M	=Matrix.	
lydric Soil I	ndicators:						Indic	ators fo	r Problemat	ic Hydri	c Soils
	vipedon (A2)		Polyvalue Bo	urface (S9) <b>(</b> I	MLRA	147, 14	3)	Coast Pra	k (A10) <b>(ML</b> airie Redox (		
, 0	n Sulfide (A4)		Loamy Muck	ed Matrix (F2		RA 136)		Piedmont	147, 148) Floodplain (	Soils (F1	9)
	l Layers (A5) ck (A10) <b>(LRR N)</b>		Depleted Ma Redox Dark		<b>`</b>		F		<b>136, 147)</b> nt Material (	E21)	
	Below Dark Surface	(A11)	Depleted Da	,			'		e MLRA 127	,	48)
	irk Surface (A12)	(,,,,,)	Redox Depr		,		١	•	low Dark Su		,
	lucky Mineral (S1)		Iron-Mangar			LRR N			plain in Rem	•	)
	leyed Matrix (S4)		MLRA 13		()	<b>,</b> ,		(		,	
	edox (S5)		Umbric Surfa	-	LRA 12	22, 136)	<sup>3</sup> Indic	ators of	hydrophytic	vegetati	on and
	Matrix (S6)		Piedmont Fl						ydrology mu		
	face (S7)		Red Parent	•		•			sturbed or pr		
Restrictive L	_ayer (if observed):								-		
Type:	<b>,</b> (,-										
Depth (ir	nches):						Hydric Soil Prese	nt?	Yes	No	Х
Remarks:	·									-	
tomanto.											

U.S. Army Corps of Enginee WETLAND DETERMINATION DATA SHEET – Eastern Moun See ERDC/EL TR-12-9; the proponent agenc	tains and Piedmont Region Requirement Control Symbol EXEMPT:
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Center, LLC Investigator(s): M. Johnson, T. Parrish	City/County: <u>Martin</u> Sampling Date: <u>08/10/2024</u> State: <u>KY</u> Sampling Point: <u>W001</u> Section, Township, Range: N/A
	ocal relief (concave, convex, none):         Concave         Slope (%):         2           2872         Long:         -82.535877         Datum:         NAD83
Are climatic / hydrologic conditions on the site typical for this time of year         Are Vegetation       , Soil       X       , or Hydrology       significantly of a significantly of	disturbed? Are "Normal Circumstances" present? Yes X No
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	Is the Sampled Area within a Wetland? Yes X No
Remarks: Soil is disturbed from past land use a surface coal mine. HYDROLOGY	
Water Marks (B1) Presence of Reduc	Ador (C1)       Drainage Patterns (B10)         eres on Living Roots (C3)       Moss Trim Lines (B16)         ed Iron (C4)       Dry-Season Water Table (C2)         tion in Tilled Soils (C6)       Crayfish Burrows (C8)         (C7)       Saturation Visible on Aerial Imagery (C9)
Field Observations:         Surface Water Present?       Yes       No       X       Depth (inc         Water Table Present?       Yes       No       X       Depth (inc         Saturation Present?       Yes       No       X       Depth (inc         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photon	hes): Wetland Hydrology Present? Yes X No
Remarks:	

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet:	
·				Number of Dominant Species	
				That Are OBL, FACW, or FAC:	3 (A)
·				Total Number of Dominant	
·				Species Across All Strata:	3 (B)
				Percent of Dominant Species	
				That Are OBL, FACW, or FAC: 1	00.0% (A/E
				Prevalence Index worksheet:	
		=Total Cover		Total % Cover of: Mu	ltiply by:
50% of total cover:	20%	of total cover:		OBL species 35 x 1 =	35
apling/Shrub Stratum (Plot size: 15	)			FACW species 0 x 2 =	0
	_			FAC species 40 x 3 =	120
				FACU species 0 x 4 =	0
				UPL species 0 x 5 =	0
				Column Totals: 75 (A)	155 (
				Prevalence Index = B/A =	2.07
				Hydrophytic Vegetation Indicators:	2.01
				1 - Rapid Test for Hydrophytic Vege	otation
	_			X 2 - Dominance Test is >50%	etation
				X 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
				4 - Morphological Adaptations1 (Pro	uido ou posti
		=Total Cover		data in Remarks or on a separat	
50% of total cover:	20%	of total cover:			
lerb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetation	n' (Explain)
lva annua	30	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hy	
Symphyotrichum pilosum	10	No	FAC	present, unless disturbed or problemation	
Persicaria punctata	15	Yes	OBL	Definitions of Four Vegetation Strata	:
Carex vulpinoidea	20	Yes	OBL	Tree – Woody plants, excluding vines,	
				more in diameter at breast height (DBH	), regardless
				height.	
				Sapling/Shrub – Woody plants, exclud	
				than 3 in. DBH and greater than or equa	al to 3.28 ft
				m) tall.	
				Herb – All herbaceous (non-woody) pla	nts, regardles
0.				of size, and woody plants less than 3.28	
-					
	75	=Total Cover		Woody Vine – All woody vines greater	
1		=Total Cover	15	Woody Vine – All woody vines greater height.	
150% of total cover:		=Total Cover of total cover:	15		
1			15		
1			15		
1			15		
1			15		
1			15		
1			15	height.	
1	38 20%		15		

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Sampling Point: W001
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		o the dep				or or con	firm the absence of in	dicators.)
Depth (inchos)	Matrix Color (moist)	%	Color (moist)	ox Featur %		Loc <sup>2</sup>	Toxturo	Remarks
inches)				70	Type <sup>1</sup>		Texture	Remains
0-2	10YR 4/2	97	7.5YR 4/6	3	С	PL	Loamy/Clayey	sandy loam
2-16	2.5YR 4/1	95	7.5YR 4/6	5	С	Μ	Loamy/Clayey	sandy loam
					_			
			- Doducod Matrix M			Croine	<sup>2</sup> l acetian	PL=Pore Lining, M=Matrix.
Type: C=Cc Tydric Soil I	oncentration, D=Deple	etion, Rivi	-Reduced Matrix, M	IS=IVIASK	ed Sand	Grains.		tors for Problematic Hydric Soils
Histosol			Polyvalue B	elow Sur	face (S8)	(MLRA 1		cm Muck (A10) (MLRA 147)
	pipedon (A2)		Thin Dark S					past Prairie Redox (A16)
Black His	,		Loamy Mucl				· · · · · · · · · · · · · · · · · · ·	(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Pie	edmont Floodplain Soils (F19)
	Layers (A5)		X Depleted Ma					(MLRA 136, 147)
	ck (A10) <b>(LRR N)</b>		Redox Dark					ed Parent Material (F21)
	Below Dark Surface	(A11)	Depleted Da					outside MLRA 127, 147, 148)
	irk Surface (A12) lucky Mineral (S1)		Redox Depr					ry Shallow Dark Surface (F22) her (Explain in Remarks)
	leyed Matrix (S4)		Iron-Mangar MLRA 13		5565 (1 12		,01	
	edox (S5)		Umbric Surf		) (MLRA	122. 136	) <sup>3</sup> Indica	tors of hydrophytic vegetation and
	Matrix (S6)		Piedmont Fl					tland hydrology must be present,
	face (S7)		Red Parent	-				less disturbed or problematic.
Restrictive L	_ayer (if observed):							
Type:	N/A	4						
Depth (in	nches):						Hydric Soil Present	t? Yes <u>X</u> No

U.S. Army WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; th		ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Solar Project		City/County: Inez / Martin	Sampling Date: 08-10-2024
Applicant/Owner: Lynn Bark Energy Faci	ility, LLC		State: KY Sampling Point: <u>w002</u>
Investigator(s): Ralph Schuler, Andrew Jasko		Section, Township, Range:	
Landform (hillside, terrace, etc.): Flat		ocal relief (concave, convex, none	e): Concave Slope (%): 3%
· · · · ·	Lat: 37.786		
Subregion (LRR or MLRA): LRR N		°	NWI classification: None
Soil Map Unit Name: Fiveblock, Fairpoint an			
Are climatic / hydrologic conditions on the site			No (If no, explain in Remarks.)
Are Vegetation N, Soil Y, or Hydro			nstances" present? Yes N No
Are Vegetation N, Soil N, or Hydro	logy <u>N</u> naturally probl	lematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach	site map showing s	sampling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sampled Area within a Wetland?	Yes_X_ No
HYDROLOGY Wetland Hydrology Indicators:		Se	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is requir	ed: check all that apply)	<u></u>	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Patterns (B10)
Saturation (A3)	X Oxidized Rhizospher	res on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	X Presence of Reduce	ed Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Other (Explain in Re		Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7	<i>`</i> )		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	,		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No X Depth (inch	nes):	
Water Table Present? Yes		nes):	
Saturation Present? Yes	No X Depth (inch	Nes): Wetland Hydr	rology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well parial photos	provious inspections) if availab	
Describe Recorded Data (stream gauge, mo	nitoring well, aerial priotos	s, previous inspections), il availab	IC.
Remarks:	at		
Ground was not saturated but it was still moi	SL		

	Absolute	Dominant	Indicator		
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species	<b>a</b> ( <b>b</b> )
				That Are OBL, FACW, or FAC:	<u>3</u> (A)
				Total Number of Dominant	с (D
				Species Across All Strata:	5 (B)
				Percent of Dominant Species	00.00/ //
				That Are OBL, FACW, or FAC:	60.0% (A
				Prevalence Index worksheet:	
500/ 61 / 1		=Total Cover			Multiply by:
50% of total cover:	20%	of total cover:		OBL species 10 x 1 =	
pling/Shrub Stratum (Plot size: 15'	_)			FACW species 35 x 2 =	
Salix nigra	10	Yes	OBL	FAC species 2 x 3 =	
Rubus argutus	5	Yes	FACU	FACU species 20 x 4 =	80
				UPL species 0 x 5 =	- 0
				Column Totals: 67 (A)	166
				Prevalence Index = B/A =	2.48
				Hydrophytic Vegetation Indicators	:
				1 - Rapid Test for Hydrophytic V	egetation
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	15	=Total Cover		4 - Morphological Adaptations <sup>1</sup> (	Provide support
50% of total cover:	8 20%	of total cover:	3	data in Remarks or on a sepa	rate sheet)
erb Stratum (Plot size: 5')				Problematic Hydrophytic Vegeta	tion <sup>1</sup> (Explain)
Juncus effusus	20	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland	,
Lespedeza cuneata	15	Yes	FACU	present, unless disturbed or problem	, ,,
Scirpus cyperinus	15	Yes	FACW	Definitions of Four Vegetation Stra	
Vernonia gigantea	2	No	FAC	•	
Vollionia giganica			1710	<b>Tree</b> – Woody plants, excluding vine more in diameter at breast height (D	
				height.	
				Sapling/Shrub – Woody plants, exc than 3 in. DBH and greater than or e	
				m) tall.	qual to 5.20 It
				<b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than 3	
·					
		=Total Cover		Woody Vine – All woody vines great	er than 3.28 ft i
50% of total cover:	26 20%	of total cover:	11	height.	
oody Vine Stratum (Plot size:	)				
		=Total Cover		Hydrophytic Vegetation	
50% of total cover:		of total cover:		•	o
	2070	5. 10101 00V01.		100 /	

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Sampling Point: w002
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rofile Desc	ription: (Describe to	o the dept	h needed to docu	ment the	e indicato	or or con	firm the absence	of indicators.)
epth	Matrix			x Featu				
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 5/1	80	10YR 5/6	20	RM	PL/M	Loamy/Clayey	sandy loam
		·						
ype: C=Co	oncentration, D=Deple	tion, RM=	Reduced Matrix, M	S=Mask	ed Sand	Grains.	<sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
ydric Soil I	Indicators:		·					ndicators for Problematic Hydric Soils
Black His Hydroger Stratified 2 cm Mud Depleted Thick Da Sandy M Sandy G Sandy Re Stripped	pipedon (A2)	(A11)	Polyvalue Bo Thin Dark So Loamy Muck Loamy Gley X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangar MLRA 130 Umbric Surfa Piedmont Fl Red Parent	urface (S ky Minera ed Matrix atrix (F3) Surface rk Surfa essions hese Mas <b>5)</b> ace (F13 podplain	59) (MLRA al (F1) (M k (F2) (F6) ce (F7) (F8) ssses (F12 c) (MLRA Soils (F1	A 147, 14 ILRA 136 2) (LRR N 122, 136) 9) (MLRA	8) ) , ) ) A 148)	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
estrictive L	ayer (if observed):							
Туре:								
Depth (in	nches):	12					Hydric Soil Pr	esent? Yes X No
•								on the hydric soil definition: "a soil that p anaerobic conditions in the upper part"

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mount See ERDC/EL TR-12-9; the proponent agency	ains and Piedmont Region
Subregion (LRR or MLRA):       LRR N       Lat: 37.795         Soil Map Unit Name:       FiD - Fiveblock, Fairpoint, and Kaymine soils, 6 t         Are climatic / hydrologic conditions on the site typical for this time of yea         Are Vegetation       , Soil         X       , or Hydrology         significantly problem	to 30 percent slopes, stony       NWI classification:       None         ar?       Yes X       No       (If no, explain in Remarks.)         isturbed?       Are "Normal Circumstances" present?       Yes X       No
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No         Remarks:       Wetland point assoicated with Wetland 006. Soil is signifacity disturbed	Is the Sampled Area within a Wetland? Yes X No d from past land use a surface coal mine.
Water Marks (B1)	dor (C1)       Drainage Patterns (B10)         res on Living Roots (C3)       Moss Trim Lines (B16)         ed Iron (C4)       Dry-Season Water Table (C2)         on in Tilled Soils (C6)       Crayfish Burrows (C8)         (C7)       Saturation Visible on Aerial Imagery (C9)
Field Observations:         Surface Water Present?       Yes	nes): hes): hes): Wetland Hydrology Present? Yes X No

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test w	orksheet:		
				Number of Dominar			
				That Are OBL, FAC	W, or FAC:	1	(A)
				Total Number of Do			
				Species Across All	Strata:	1	(B)
				Percent of Dominar			
				That Are OBL, FAC		100.0%	(A/
·				Prevalence Index	worksheet:		
		=Total Cover		Total % Cove	r of:	Multiply by:	:
50% of total cover:	20%	of total cover:		OBL species	55 x 1	= 55	
apling/Shrub Stratum (Plot size: 15	)			FACW species	10 x 2	= 20	
				FAC species	20 x 3	= 60	
				FACU species	0 x 4	= 0	
				UPL species	0 x 5	= 0	
				Column Totals:	85 (A)	135	;
					e Index = B/A =	1.59	
				Hydrophytic Veget	tation Indicator	s:	
					for Hydrophytic \		
				X 2 - Dominance		-9	
				X 3 - Prevalence			
		=Total Cover			cal Adaptations <sup>1</sup>	(Provide su	nnort
E00/ of total approxim		of total cover:		· · · ·	arks or on a sep		• •
50% of total cover:	20%				•	. ,	
l <u>erb Stratum</u> (Plot size: <u>5</u> ) . <i>Carex vulpinoidea</i>		N			drophytic Vegeta		
	55	Yes	OBL	<sup>1</sup> Indicators of hydric		, ,,	must
	10	No	FAC	present, unless dist			
Kyllinga pumila	10	No	FACW	Definitions of Four	r vegetation Str	'ata:	
Arthraxon hispidus	10	No	FAC	Tree – Woody plan			
				more in diameter at height.	breast neight (L	леран), regard	aless
				neight.			
				Sapling/Shrub – W			
				than 3 in. DBH and	greater than or e	equal to 3.28	8 ft
				m) tall.			
D				Herb - All herbaced			ardle
1				of size, and woody	plants less than	3.28 ft tall.	
	85	=Total Cover		Woody Vine - All v	voody vines grea	ater than 3.2	28 ft ir
50% of total cover:	43 20%	of total cover:	17	height.			
/oody Vine Stratum (Plot size: 30 )	)						
,							
				Hydrophytic			
		=Total Cover		Vegetation			
50% of total cover:	200/	of total cover:		Present? Y	∕es X M	No	

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Sampling Point: W003
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	ription: (Describe t	o the dept				or or cont	firm the absence of	of indicat	ors.)	
epth	Matrix			x Featur		. 2	<b>-</b> .			
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	S
0-2	10YR 3/2	100					Loamy/Clayey		sandy loa	m
2-6	2.5YR 4/1	90	10YR 4/6	10	С	Μ	Loamy/Clayey		sandy loar	n
						_				
						_				
51	oncentration, D=Deple	etion, RM=	Reduced Matrix, N	S=Mask	ed Sand	Grains.			Pore Lining, M=M	
lydric Soil I									or Problematic	
Histosol			Polyvalue B					-	uck (A10) (MLRA	-
	pipedon (A2)		Thin Dark S				-		rairie Redox (A1	6)
Black His			Loamy Muc	-		LKA 136	)	-	A 147, 148) nt Elecadolain Sai	la (E10)
	n Sulfide (A4) I Layers (A5)		Loamy Gley		(F2)			-	nt Floodplain Soi	is (F19)
	ck (A10) <b>(LRR N)</b>		X Depleted Ma Redox Dark		(E6)			-	<b>A 136, 147)</b> rent Material (F2 <sup>-</sup>	1)
	Below Dark Surface	( <b>Δ</b> 11)	Depleted Da						ide MLRA 127, 1	,
	irk Surface (A12)	(/(1))	Redox Depr						allow Dark Surfa	
	lucky Mineral (S1)		Iron-Manga			) (LRR N	. —	-	Explain in Remark	
	leyed Matrix (S4)		MLRA 13			, (				,
	edox (S5)		Umbric Surf		) (MLRA	122, 136)	) <sup>3</sup> ln	dicators o	of hydrophytic veg	netation and
	Matrix (S6)		Piedmont Fl						hydrology must l	
	face (S7)		Red Parent	-			-		listurbed or probl	-
estrictive L	_ayer (if observed):									
Type:	Grav	vel								
Depth (in		6					Hydric Soil Pre	sent?	Yes X	No

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mount See ERDC/EL TR-12-9; the proponent agency	ains and Piedmont Region Region
Project/Site: Lynn Bark Energy Center	City/County: Martin Sampling Date: 08/10/2024
Applicant/Owner: Lynn Bark Energy Center, LLC	State: KY Sampling Point: W004
Investigator(s): M. Johnson, T. Parrish	Section, Township, Range: N/A
	cal relief (concave, convex, none): Concave Slope (%): 1
	· · · · · · · · · · · · · · · · · · ·
Subregion (LRR or MLRA): LRR N Lat: 37.795 Soil Map Unit Name: FiD - Fiveblock, Fairpoint, and Kaymine soils, 6 f	
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, SoilX_, or Hydrologysignificantly d	
Are Vegetation, Soil, or Hydrologynaturally prob	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	Is the Sampled Area within a Wetland? Yes X No
Remarks: Wetland point assoicated with Wetland 004. Soil is significantly disturb	ed from past land use a surface coal mine.
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) True Aquatic Plants	
High Water Table (A2) X Saturation (A3) Hydrogen Sulfide Od Oxidized Rhizosphe	for (C1)     Drainage Patterns (B10)       res on Living Roots (C3)     Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduce	
	on in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (	
Algal Mat or Crust (B4) Other (Explain in Re	
Iron Deposits (B5)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inch	
Water Table Present?         Yes         No _X         Depth (incl Saturation Present?           Yes X         No         Depth (incl Depth (incl Saturation Present?	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:
Remarks:	

Tree Stratum (Plot size: 30 )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:			
1				Number of Domir That Are OBL, FA			1	(A)
3				Total Number of Species Across A			1	(B)
5				Percent of Domin That Are OBL, FA		1	00.0%	(A/E
7.				Prevalence Inde	x worksheet:			
		=Total Cover		Total % Co	ver of:	Mu	Itiply by:	
50% of total cover:	20%	of total cover:		OBL species	55	x 1 =	55	
Sapling/Shrub Stratum (Plot size: 15	)			FACW species	10	x 2 =	20	
1. Carex vulpinoidea	55	Yes	OBL	FAC species	20	x 3 =	60	
2. Echinochloa crus-galli	10	No	FAC	FACU species	0	x 4 =	0	
3. Kyllinga pumila	10	No	FACW	UPL species	0	x 5 =	0	
4. Arthraxon hispidus	10	No	FAC	Column Totals:	85 (/	A)	135	(
5.	_			Prevale	nce Index = E	3/A =	1.59	
6.				Hydrophytic Veg	getation Indic	ators:		
7.				1 - Rapid Tes	st for Hydroph	vtic Vea	etation	
8.	-			X 2 - Dominand				
9.				X 3 - Prevalence				
	85	=Total Cover			gical Adaptatio		ovide sun	nortir
50% of total cover:		of total cover:	17		marks or on a			
	43 20%	or total cover.	17					
				D. LL.			1 / E	
Herb Stratum (Plot size: 5 )				Problematic	Hydrophytic V	egetatio	n <sup>1</sup> (Expla	iin)
Herb Stratum         (Plot size: 5 )           1.				Problematic <sup>1</sup> Indicators of hyd present, unless d	Iric soil and we	etland h	ydrology r	
1				<sup>1</sup> Indicators of hyd	lric soil and we	etland hy oblemati	ydrology r ic.	
1.				<sup>1</sup> Indicators of hyd present, unless d	lric soil and we isturbed or pro <b>our Vegetatio</b> ants, excluding	etland hy oblemati <b>n Strata</b> g vines,	ydrology r ic. i: 3 in. (7.6	must
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter	Iric soil and we isturbed or pro <b>our Vegetatio</b> ants, excluding at breast heig Woody plants	etland hy oblemati <b>n Strata</b> g vines, ght (DBH	ydrology r ic. 3 in. (7.6 ł), regardi ding vines	must i cm) iless c
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar	Iric soil and we isturbed or pro- <b>our Vegetatio</b> ants, excluding at breast heig Woody plants and greater that ceous (non-wo	etland hy oblemati n Strata g vines, ght (DBF s, excluo n or equ	ydrology r ic. 3 in. (7.6 1), regardl ding vines al to 3.28 ants, rega	must i cm) i lless c s, less 3 ft
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must l cm) o lless o s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must l cm) o lless o s, less 3 ft ardless
1.		=Total Cover of total cover:		<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must cm) ( lless c s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must cm) ( lless c s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must cm) ( lless c s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must (cm) (lless o s, less 3 ft ardles
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must cm) ( lless c s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must (cm) (lless o s, less 3 ft ardles
1.	20%	of total cover:		<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must l cm) o lless o s, less 3 ft ardless
1.				<sup>1</sup> Indicators of hyd present, unless d <b>Definitions of Fo</b> <b>Tree</b> – Woody pla more in diameter height. <b>Sapling/Shrub</b> – than 3 in. DBH ar m) tall. <b>Herb</b> – All herbac of size, and wood <b>Woody Vine</b> – Al height.	Iric soil and we isturbed or pro- our Vegetatio ants, excludin at breast heig Woody plants and greater that ceous (non-wo by plants less t	etland hy oblemati n Strata g vines, ght (DBF s, exclud n or equ body) pla than 3.2	ydrology r ic. 3 in. (7.6 ł), regard ling vines al to 3.28 ants, rega 8 ft tall.	must t cm) o lless o s, less 3 ft ardless

#### VECETATION (Equir Strate) مأ ما م

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Sampling Point: W004
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Profile Desc	cription: (Describe t	o the depth				or or con	firm the absence	of indica	tors.)		
Depth	Matrix			ox Feature							
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		F	Remar	ks
0-2	10YR 3/2	100					Loamy/Clayey		sa	ndy lo	bam
2-6	2.5YR 4/1	90	10YR 4/6	10	С	М	Loamy/Clayey	,	sa	ndy lo	am
		·									
				·							
						_					
Type: C=C	oncentration, D=Depl	etion, RM=F	Reduced Matrix, M	IS=Maske	d Sand (	Grains.	<sup>2</sup> Loca	ation: PL=I	Pore Lining	g, M=	Matrix.
Hydric Soil	Indicators:						I	ndicators	for Proble	matio	c Hydric Soi
Histosol	(A1)		Polyvalue B	elow Surfa	ace (S8)	(MLRA 1	47, 148)	2 cm M	luck (A10)	(MLF	RA 147)
Histic Ep	oipedon (A2)		Thin Dark S	urface (S	9) <b>(MLR</b> A	A 147, 14	8)	Coast F	Prairie Rec	lox (A	16)
Black Hi	istic (A3)		Loamy Muc	ky Mineral	(F1) <b>(M</b>	LRA 136	)	(MLF	RA 147, 14	8)	
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		_	Piedmo	ont Floodpl	ain S	oils (F19)
Stratified	d Layers (A5)		X Depleted Ma	atrix (F3)				(MLF	RA 136, 14	7)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (	F6)		_	Red Pa	rent Mate	rial (F	21)
Depleted	d Below Dark Surface	(A11)	Depleted Da	ark Surfac	e (F7)			(outs	ide MLRA	127,	147, 148)
Thick Da	ark Surface (A12)		Redox Depr	essions (F	-8)		_	Very SI	nallow Dar	k Surl	face (F22)
Sandy M	lucky Mineral (S1)		Iron-Mangar	nese Mas	ses (F12	) (LRR N	,	Other (	Explain in	Rema	arks)
Sandy G	Gleyed Matrix (S4)		MLRA 13	6)							
Sandy R	Redox (S5)		Umbric Surf	ace (F13)	(MLRA	122, 136	) 3	Indicators	of hydroph	ytic v	egetation an
Stripped	l Matrix (S6)		Piedmont Fl	oodplain \$	Soils (F1	9) (MLRA	A 148)	wetland	hydrolog	/ mus	t be present,
Dark Su	rface (S7)		Red Parent	Material (	F21) <b>(Ml</b>	RA 127,	147, 148)	unless	disturbed	or pro	blematic.
Restrictive	Layer (if observed):										
Type:	Grav	vel									
Depth (i	nches):	6					Hydric Soil P	resent?	Yes	Х	No
Remarks: Significant s											

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mount See ERDC/EL TR-12-9; the proponent agency	ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site:       Lynn Bark Energy Center         Applicant/Owner:       Lynn Bark Energy Center, LLC         Investigator(s):       M. Johnson, T. Parrish	City/County: <u>Martin</u> Section, Township, Range: <u>N/A</u>	
Landform (hillside, terrace, etc.):       Swale       Ldc         Subregion (LRR or MLRA):       LRR N       Lat:       37.790         Soil Map Unit Name:       FiD - Fiveblock, Fairpoint, and Kaymine soils, 6 f	0	
Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation, Soil, or Hydrology significantly d Are Vegetation, Soil, or Hydrology naturally prob SUMMARY OF FINDINGS – Attach site map showing significantly and site map showing significant site map showing significant site map showing significant site map showing site site site site site site site site	isturbed? Are "Normal Circum lematic? (If needed, explain a	any answers in Remarks.)
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: Wetland point assoicated with Wetland 005, Soils have been significant	ntly disturbed from past land use a	surface coal mine.
HYDROLOGY		
Water Marks (B1) Presence of Reduce	(B14) dor (C1) res on Living Roots (C3) ed Iron (C4) on in Tilled Soils (C6) (C7) marks) X	ondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Surface Water Present?       Yes       No       X       Depth (inch         Water Table Present?       Yes       No       X       Depth (inch         Saturation Present?       Yes       X       No       Depth (inch         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos	nes): 0 Wetland Hydro	ology Present? Yes <u>X</u> No e:
Remarks:		

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet:	
·				Number of Dominant Species	( • )
				That Are OBL, FACW, or FAC: 2	(A)
-				Total Number of Dominant	(P)
				Species Across All Strata: 2	(B)
·				Percent of Dominant Species	( • /
				That Are OBL, FACW, or FAC: 100.0% Prevalence Index worksheet:	)(A/I
·		=Total Cover		Total % Cover of: Multiply b	
50% of total cover:		of total cover:			5y. 60
apling/Shrub Stratum (Plot size: 15	20%				0
	_)				0
					2
				·	0
				()	<u>0</u> (
				Prevalence Index = B/A = 1.0	0
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetation	ר
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^{1}$	
		=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide s data in Remarks or on a separate she	
50% of total cover:	20%	of total cover:			,
lerb Stratum (Plot size: 5_)				Problematic Hydrophytic Vegetation <sup>1</sup> (Ex	plain)
Typha angustifolia	60	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrolog	gy must
Carex frankii	20	Yes	OBL	present, unless disturbed or problematic.	
				Definitions of Four Vegetation Strata:	
				<b>Tree</b> – Woody plants, excluding vines, 3 in. (	
				more in diameter at breast height (DBH), rega	ardiess
				Sapling/Shrub – Woody plants, excluding vi	
				than 3 in. DBH and greater than or equal to 3 m) tall.	.28 ft
				,	
)				<b>Herb</b> – All herbaceous (non-woody) plants, re	
1				of size, and woody plants less than 3.28 ft tal	
	80	=Total Cover		Woody Vine – All woody vines greater than 3	3.28 ft in
50% of total cover:	40 20%	of total cover:	16	height.	
Voody Vine Stratum (Plot size: 30 )					
i. j.		=Total Cover		Hydrophytic Vegetation	

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Sampling Point: W005
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	Redox Features		
Depth Matrix inches) Color (moist) %		Texture	Remarks
		Toxiaro	
ype: C=Concentration, D=Depletion,	RM=Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Locatior	n: PL=Pore Lining, M=Matrix.
ydric Soil Indicators:			cators for Problematic Hydric Soil
Histosol (A1)	Polyvalue Below Surface (S8) (MLRA		2 cm Muck (A10) <b>(MLRA 147)</b>
Histic Epipedon (A2)	Thin Dark Surface (S9) (MLRA 147, 14		Coast Prairie Redox (A16)
Black Histic (A3)	Loamy Mucky Mineral (F1) (MLRA 136	·	(MLRA 147, 148)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
Stratified Layers (A5)	Depleted Matrix (F3)	'	(MLRA 136, 147)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)		Red Parent Material (F21)
Depleted Below Dark Surface (A11)			(outside MLRA 127, 147, 148)
Thick Dark Surface (A12)	Redox Depressions (F8)	,	Very Shallow Dark Surface (F22)
Sandy Mucky Mineral (S1)	Iron-Manganese Masses (F12) (LRR N		Other (Explain in Remarks)
		×, <u>×</u>	
Sandy Gleyed Matrix (S4)	MLRA 136)	3	
Sandy Redox (S5)	Umbric Surface (F13) (MLRA 122, 136	-	cators of hydrophytic vegetation and
Stripped Matrix (S6)	Piedmont Floodplain Soils (F19) (MLR.	-	wetland hydrology must be present,
Dark Surface (S7)	Red Parent Material (F21) (MLRA 127	, 147, 148)	unless disturbed or problematic.
estrictive Layer (if observed):			
Туре:			
Depth (inches):		Hydric Soil Prese	ent? Yes X No
o dig area - undernine gas nine signs ne	ear wetland. Hydric soil assumed due to presence		a nyarology.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountain See ERDC/EL TR-12-9; the proponent agency is	
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Center, LLC Investigator(s): M. Johnson, T. Parrish	_ City/County: <u>Martin</u> Sampling Date: <u>08/10/2024</u> State: <u>KY</u> Sampling Point: <u>W006</u> Section, Township, Range: N/A
	I relief (concave, convex, none): <u>Concave</u> Slope (%): <u>1</u> 18 Long: 82.553317 Datum: NAD83 30 percent slopes, stony NWI classification: None
Are Vegetation      , Soil       X       , or Hydrology	urbed? Are "Normal Circumstances" present? Yes X No
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No	Is the Sampled Area within a Wetland? Yes X No
Remarks: Wetland point assoicated with Wetland 006. Soil is significantly disturbed	from past land use a surface coal mine.
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)         Surface Water (A1)       True Aquatic Plants (B         X       High Water Table (A2)       Hydrogen Sulfide Odor         X       Saturation (A3)       Oxidized Rhizospheres         Water Marks (B1)       Presence of Reduced         Sediment Deposits (B2)       Recent Iron Reduction         Drift Deposits (B3)       Thin Muck Surface (C7         Algal Mat or Crust (B4)       Other (Explain in Remaining Presence of Reduced)         Iron Deposits (B5)       Inundation Visible on Aerial Imagery (B7)         Water-Stained Leaves (B9)       Aquatic Fauna (B13)	(C1)       Drainage Patterns (B10)         o n Living Roots (C3)       Moss Trim Lines (B16)         Iron (C4)       Dry-Season Water Table (C2)         in Tilled Soils (C6)       Crayfish Burrows (C8)         ')       Saturation Visible on Aerial Imagery (C9)
Field Observations:         Surface Water Present?       Yes       No       X       Depth (inchest Vater Table Present?         Water Table Present?       Yes       X       No       Depth (inchest Saturation Present?       Yes       X       No       Depth (inchest Gater	3     Yes     X     No       Yes     X     No     X
Remarks:	

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species	
				That Are OBL, FACW, or FAC: 1	(A)
·				Total Number of Dominant	
				Species Across All Strata: 1	(B)
				Percent of Dominant Species	
				That Are OBL, FACW, or FAC: 100.00	% (A/
				Prevalence Index worksheet:	
		=Total Cover		Total % Cover of: Multiply	by:
50% of total cover:	20%	of total cover:		OBL species 15 x 1 =	15
apling/Shrub Stratum (Plot size: 15	)			FACW species 65 x 2 =	30
	_			FAC species 0 x 3 =	0
				FACU species 0 x 4 =	0
				UPL species 0 x 5 =	0
				Column Totals: 80 (A)	45
					81
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetatio	'n
	_			X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^{1}$	
		TILO		4 - Morphological Adaptations <sup>1</sup> (Provide	aunnart
50% 61.1		=Total Cover		data in Remarks or on a separate sho	
50% of total cover:	20%	of total cover:			,
lerb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetation <sup>1</sup> (E	xplain)
Scirpus cyperinus Carex vulpinoidea	65	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wetland hydrolo	ogy must
	15	No	OBL	present, unless disturbed or problematic.	
				Definitions of Four Vegetation Strata:	
				Tree – Woody plants, excluding vines, 3 in.	
				more in diameter at breast height (DBH), req	gardless
				height.	
				Sapling/Shrub – Woody plants, excluding v	ines, les
				than 3 in. DBH and greater than or equal to	3.28 ft
				m) tall.	
).				Herb – All herbaceous (non-woody) plants,	egardle
				of size, and woody plants less than 3.28 ft ta	ıll.
1.	-	-Total Cavar		Woody Vine – All woody vines greater than	3 28 ft i
1	80			······································	
		=Total Cover	16	height.	0.20 11 1
50% of total cover:		of total cover:	16	height.	0.20 10 1
50% of total cover:			16	height.	0.20 11 1
50% of total cover:			16	height.	0.20 11 1
50% of total cover: /oody Vine Stratum (Plot size:30)			16	height.	
50% of total cover: /oody Vine Stratum (Plot size:30)			16	height.	
50% of total cover: /oody Vine Stratum (Plot size:30)			16	height.	
50% of total cover: /oody Vine Stratum (Plot size:30)			16		
	40 20%		16	height. Hydrophytic Vegetation	

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Sampling Point: W006
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pth	Matrix	•	ox Features		firm the absence of in	iuicators.)	
ches) Color (i		Color (moist)	% Type	<sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0-5 2.5YF	R 4/1 95	10YR 5/6	5 C	PL	Loamy/Clayey	Sandy Loam	
				- <u> </u>			
pe: C=Concentration	, D=Depletion, R	 M=Reduced Matrix, M	S=Masked Sar	d Grains.		PL=Pore Lining, M=Matrix.	
dric Soil Indicators:					Indica	tors for Problematic Hydric Soil	
Histosol (A1)		Polyvalue B	elow Surface (S	8) <b>(MLRA</b> '	147, 148) 2 c	cm Muck (A10) <b>(MLRA 147)</b>	
Histic Epipedon (A2) Black Histic (A3)			urface (S9) <b>(ML</b> ‹y Mineral (F1)		·	oast Prairie Redox (A16) ( <b>MLRA 147, 148)</b>	
Hydrogen Sulfide (A Stratified Layers (A5	,		Loamy Gleyed Matrix (F2) X Depleted Matrix (F3)			edmont Floodplain Soils (F19) <b>(MLRA 136, 147)</b>	
2 cm Muck (A10) (LF			Redox Dark Surface (F6)			ed Parent Material (F21)	
Depleted Below Dark	-		Depleted Dark Surface (F7)			(outside MLRA 127, 147, 148)	
Thick Dark Surface (	Redox Depr	Redox Depressions (F8) Very Shallow Dark Surface (F22					
Sandy Mucky Minera	al (S1)	Iron-Mangar	nese Masses (F	12) (LRR N	<b>I</b> , Ot	ther (Explain in Remarks)	
Sandy Gleyed Matrix	: (S4)	MLRA 13	6)				
Sandy Redox (S5)		Umbric Surfa	Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and				
Stripped Matrix (S6)		Piedmont Fl	Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be presen				
Dark Surface (S7)		Red Parent	Material (F21) <b>(</b>	MLRA 127	, <b>147, 148)</b> un	less disturbed or problematic.	
strictive Layer (if obs	served):						
Туре:	Gravel						
Depth (inches):	5				Hydric Soil Presen	t? Yes X No	
il is significantly distur	oed from past la	id use a sufface coal i	mine.				

U.S. Army Corps of Enginee WETLAND DETERMINATION DATA SHEET – Eastern Moun See ERDC/EL TR-12-9; the proponent agency	tains and Piedmont Region Requirement Control Symbol EXEMPT:				
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Center, LLC	City/County: <u>Martin</u> Sampling Date: <u>08/11/2</u> State: <u>KY</u> Sampling Point: <u>W00</u>				
Investigator(s): <u>M. Johnson, T. Parrish</u>	Section, Township, Range: <u>N/A</u>				
	ocal relief (concave, convex, none): Concave Slope (%): 1				
Subregion (LRR or MLRA): LRR N Lat: <u>37.79</u> Soil Map Unit Name: FiD - Fiveblock, Fairpoint, and Kaymine soils, 6					
Are climatic / hydrologic conditions on the site typical for this time of ye					
Are Vegetation , Soil X , or Hydrology significantly of					
Are Vegetation, Soil, or Hydrologynaturally prol					
	sampling point locations, transects, important features, etc				
	T				
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area				
Hydric Soil Present? Yes X No	within a Wetland? Yes X No				
Wetland Hydrology Present?         Yes X         No					
Remarks: Wetland point assoicated with Wetland 007, Soils have been signification	intly disturbed from past land use a surface coal mine				
Welland point associated with Welland 007, 30hs have been significa	inny disturbed nom past land use a surface coal mine.				
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) True Aquatic Plants	s (B14) Sparsely Vegetated Concave Surface (B8)				
X High Water Table (A2) Hydrogen Sulfide C					
	eres on Living Roots (C3) Moss Trim Lines (B16)				
Water Marks (B1) Presence of Reduc					
	cion in Tilled Soils (C6)     Crayfish Burrows (C8)       (C7)     Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Thin Muck Surface Algal Mat or Crust (B4) Other (Explain in R					
Iron Deposits (B5)	X Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)	Microtopographic Relief (D4)				
Aquatic Fauna (B13)	X FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes X No Depth (inc					
Water Table Present? Yes X No Depth (inc					
Saturation Present? Yes X No Depth (inc	thes): 2 Wetland Hydrology Present? Yes X No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photo	s previous inspections) if available:				
besonder Neoerder Data (stream gauge, monitoring weil, achar prote					
Remarks:					

	Absolute	Dominant	Indicator				
ree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test	worksheet:		
				Number of Domin			
				That Are OBL, FA	CW, or FAC:	3	(A)
				Total Number of [			
				Species Across A	ll Strata:	3	(B)
				Percent of Domin			
·				That Are OBL, FA		100.0%	(A/E
				Prevalence Index	k worksheet:		
		=Total Cover		Total % Cov	ver of:	Multiply by:	:
50% of total cover:	20%	of total cover:		OBL species	30 x	1 =30	
apling/Shrub Stratum (Plot size: 15	)			FACW species	25 x	2 = 50	
				FAC species	15 x	3 = 45	
				FACU species	5 x	4 =20	
				UPL species	0 x	5 = 0	
				Column Totals:	75 (A)	145	; (
	_			Prevaler	nce Index = B/A	= 1.93	
				Hydrophytic Veg	etation Indicate	ors:	
				1 - Rapid Tes	t for Hydrophyti	c Vegetation	
	_			X 2 - Dominand		5	
	_			X 3 - Prevalence			
		=Total Cover	<u> </u>		gical Adaptations		pportir
50% of total cover:		of total cover:		· · ·	marks or on a se		• •
lerb Stratum (Plot size: 5 )				Problematic H	lydrophytic Veg	etation <sup>1</sup> (Evol	ain)
. Bidens aristosa	10	No	FACW				,
Carex vulpinoidea	30	Yes	OBL	<sup>1</sup> Indicators of hyd present, unless di			must
Arthraxon hispidus	15	Yes	FAC	Definitions of Fo	•		
i i i i i i i i i i i i i i i i i i i	15				•		
Scirpus cyperinus Lespedeza cuneata		Yes	FACW	Tree – Woody pla more in diameter			
Lespedeza cuneata	5	No	FACU	height.	at breast neight	(DDH), Tegan	
				Ū			
				Sapling/Shrub -		0	
						or equal to 3.2	а п
				than 3 in. DBH an m) tall	d greater than c	1 -	
				m) tall.	-	-	
				m) tall. <b>Herb</b> – All herbac	eous (non-wood	ly) plants, reg	ardles
				m) tall.	eous (non-wood	ly) plants, reg	ardles
		=Total Cover		m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
		=Total Cover of total cover:	15	m) tall. <b>Herb</b> – All herbac of size, and wood	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0 1 50% of total cover:			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0. 1			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0. 1. 50% of total cover:			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0. 1. 50% of total cover:			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0. 1			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
0. 1			15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al height.	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
	<u>38</u> 20%	of total cover:	15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al height. Hydrophytic	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	
	<u>38</u> 20%		15	m) tall. Herb – All herbac of size, and wood Woody Vine – Al height.	eous (non-wood y plants less tha	dy) plants, reg an 3.28 ft tall.	

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Sampling Point: W007
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Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rema	rks
0-6	2.5YR 4/1	90	10YR 5/6	10	С	М	Loamy/Cla	yey	sandy loam	
	ncentration, D=Deple	etion, RM=	Reduced Matrix, M	S=Mask	ed Sand	Grains.	²L		Pore Lining, M=	
Hydric Soil In			Debaretue D		face (60)		447 440)			c Hydric Soils <sup>3</sup>
Histosol (/	,		Polyvalue Bo Thin Dark So		• • •	•			uck (A10) <b>(MLI</b> Vrairia Daday (/	
Black Hist	pedon (A2)		Loamy Much		<i>,</i> .				Prairie Redox (A A 147, 148)	410)
					• • •	LKA 130	)	•		cilo (E10)
, ,	Sulfide (A4) Layers (A5)		Loamy Gley X Depleted Ma		(Г2)				nt Floodplain S A 136, 147)	50lis (F19)
					(E6)			•		21)
	k (A10) <b>(LRR N)</b> Below Dark Surface	(11)	Redox Dark Depleted Da						rent Material (F ide MLRA 127	
	k Surface (A12)	(,,,,,)	Redox Depr		. ,				allow Dark Sur	
	icky Mineral (S1)		Iron-Mangar		, ,				Explain in Rem	. ,
	eyed Matrix (S4)		MLRA 13		5565 (1 12		,			unto)
Sandy Re	2		Umbric Surfa			122 136	3	<sup>3</sup> Indicators (	of hydrophytic v	vegetation and
	Matrix (S6)		Piedmont Fl		, .	-			hydrology mus	0
Dark Surf	. ,		Red Parent	•		<i>,</i> , ,			disturbed or pro	-
Restrictive La	ayer (if observed):									
Type:	Grav	rel								
Depth (ind	ches):	6					Hydric Soi	Present?	Yes X	No
Remarks:	en significantly distu	rbed from	past land use a sur	face coa	l mine. P	rominent	redox concent	rations.		

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; t		ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Center Investigator(s): M. Johnson, T. Parrish	nter, LLC	City/County: <u>Martin</u> Section, Township, Range: <u>N/</u>	Sampling Date: <u>08/11/2024</u> State: KY Sampling Point: W008 A
Landform (hillside, terrace, etc.):       Depressi         Subregion (LRR or MLRA):       LRR N         Soil Map Unit Name:       FiD - Fiveblock, Fairp         Are climatic / hydrologic conditions on the sit         Are Vegetation       , Soil         Are Vegetation       , Soil         Soil MARY OF FINDINGS – Attack	Lat: <u>37.791</u> oint, and Kaymine soils, 6 to the typical for this time of year ology significantly di ology naturally probl	o 30 percent slopes, stony ar? Yes <u>X</u> sturbed? Are "Normal Circu ematic? (If needed, explain	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Wetland point assoicated with Wetland 008 line.	Yes X No Yes X No Yes X No . Soils have been significan	Is the Sampled Area within a Wetland? tly disturbed from past land use	Yes X No
HYDROLOGY           Wetland Hydrology Indicators:           Primary Indicators (minimum of one is required)           Surface Water (A1)           High Water Table (A2)           X           Saturation (A3)           Water Marks (B1)           Sediment Deposits (B2)           Drift Deposits (B3)           X           Algal Mat or Crust (B4)           Iron Deposits (B5)           Inundation Visible on Aerial Imagery (B           Water-Stained Leaves (B9)           Aquatic Fauna (B13)	True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizospher Presence of Reduce Recent Iron Reductio Thin Muck Surface ( Other (Explain in Re	(B14) lor (C1) es on Living Roots (C3) d Iron (C4) on in Tilled Soils (C6) C7) marks)	condary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         x       (includes capillary fringe)         Describe Recorded Data (stream gauge, model)         Remarks:	No X Depth (inch No X Depth (inch No Depth (inch onitoring well, aerial photos	es): 0 es): 1 Wetland Hyd	rology Present? Yes X No

	Absolute	Dominant	Indicator	Device Texter labor	
ree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species That Are OBL, FACW, or FAC: 1	
					(A)
				Total Number of Dominant Species Across All Strata: 1	(B)
					(B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0	)% (A/
				Prevalence Index worksheet:	<u>, 176 (</u> A)
		=Total Cover		Total % Cover of: Multipl	v by:
50% of total cover:		of total cover:		$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	<u>9 Dy.</u> 65
pling/Shrub Stratum (Plot size: 15	2078			FACW species 15 $x 2 =$	30
	_)			FAC species $15 \times 3 =$	45
					0
				· ·	0
				Column Totals: 95 (A)	140
	_				.47
	_			Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetat	ion
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^{1}$	
		=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provid data in Remarks or on a separate sl	
50% of total cover:	20%	of total cover:			,
erb Stratum (Plot size: <u>5</u> ) Echinochloa crus-galli				Problematic Hydrophytic Vegetation <sup>1</sup> (I	Explain)
Echinochloa crus-galli	10	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydro	logy must
Carex vulpinoidea	60	Yes	OBL	present, unless disturbed or problematic.	
Bidens aristosa	10	No	FACW	Definitions of Four Vegetation Strata:	
Setaria pumila	5	No	FAC	Tree – Woody plants, excluding vines, 3 in	
Scirpus cyperinus	5	No	FACW	more in diameter at breast height (DBH), re height.	egardless
Persicaria punctata	5	No	OBL	neight.	
				Sapling/Shrub - Woody plants, excluding	
				than 3 in. DBH and greater than or equal to	o 3.28 ft
				m) tall.	
l	_			Herb – All herbaceous (non-woody) plants,	•
	_			of size, and woody plants less than 3.28 ft	tall.
	95	=Total Cover		Woody Vine - All woody vines greater that	n 3.28 ft i
50% of total cover:	48 20%	of total cover:	19	height.	
oody Vine Stratum (Plot size: 30	)				
	_				
	_				
		=Total Cover		Hydrophytic	
50% of total cover:		Total Cover of total cover:		Hydrophytic Vegetation Present? Yes X No	

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Sampling Point: W008
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							firm the absence of i	· · · · · · · · · · · · · · · · · · ·
epth	Matrix	0/		x Feature		1 2	Tautura	Dave artic
iches)	Color (moist)	%	Color (moist)	%	Туре1	Loc <sup>2</sup>	Texture	Remarks
0-6	2.5YR 4/1	90	10YR 4/6	10	С	Μ	Loamy/Clayey	Sandy Loam
·								
·								
	centration, D=Depl	etion, RM=I	Reduced Matrix, M	S=Maske	d Sand (	Grains.		PL=Pore Lining, M=Matrix.
/dric Soil In Histosol (A Histic Epip	A1) bedon (A2)		Polyvalue Bo Thin Dark So	urface (S9	) (MLR/	A 147, 14	47, 148)2 8)C	ators for Problematic Hydric Soils cm Muck (A10) <b>(MLRA 147)</b> coast Prairie Redox (A16)
, ,	ic (A3) Sulfide (A4) ₋ayers (A5)		Loamy Muck	ed Matrix	. , .	LRA 136		(MLRA 147, 148) riedmont Floodplain Soils (F19)
2 cm Mucł	₋ayers (A5) k (A10) <b>(LRR N)</b> Below Dark Surface	(Δ11)	X Depleted Ma Redox Dark Depleted Da	Surface (I			R	(MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148)
Thick Dark	surface (A12) cky Mineral (S1)	(/(11)	Redox Depresentation	essions (F	8)	) (LRR N		Yery Shallow Dark Surface (F22) Other (Explain in Remarks)
Sandy Gle Sandy Rec	eyed Matrix (S4) dox (S5)		MLRA 130 Umbric Surfa		(MLRA	122, 136	) <sup>3</sup> Indic	ators of hydrophytic vegetation and
Stripped N Dark Surfa			Piedmont Fleen					vetland hydrology must be present, nless disturbed or problematic.
Type: Depth (inc	yer (if observed): Grav	/el 6					Hydric Soil Preser	nt? Yes X No
emarks:	en significantly distu	rbed from p	past land use a sur	face coal	mine.			

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; t		ains and Piedmont Reo	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Cer		City/County: Martin	Sampling Date: 08/11/202 State: KY Sampling Point: W009
Investigator(s): <u>M. Johnson, T. Parrish</u>		Section, Township, Rang	
Landform (hillside, terrace, etc.): Depression		ocal relief (concave, conve	
• · · · ·	Lat: 37.789		
Soil Map Unit Name: FiD - Fiveblock, Fairpo	pint, and Kaymine soils, 6 t	o 30 percent slopes, stony	NWI classification: None
Are climatic / hydrologic conditions on the site	e typical for this time of yea	ar? Yes	No (If no, explain in Remarks.)
Are Vegetation , Soil X , or Hydro	ology significantly d	sturbed? Are "Norma	Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydro			explain any answers in Remarks.)
			,
SUMMART OF FINDINGS – Allach	i site map snowing	sampling point loca	tions, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area	
Hydric Soil Present?	Yes X No	within a Wetland?	Yes X No
Wetland Hydrology Present?	Yes X No		
Remarks: Wetland point assoicated with Wetland 009. line.	Soils have been significar	ntly disturbed from past lar	d use a surface coal mine. Berm is present along tree
HYDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is requi		(D44)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants Hydrogen Sulfide O		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) X Saturation (A3)		res on Living Roots (C3)	Drainage Patterns (B10) Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce	- , ,	Dry-Season Water Table (C2)
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)
X Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B	7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			X FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No X Depth (incl	·	
Water Table Present? Yes	No X Depth (incl		
Saturation Present? Yes x	No Depth (inch	nes): 1 Wetlan	d Hydrology Present? Yes X No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	, previous inspections), ir a	avaliadie:
Remarks:			
I Nemalina.			

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species	
				That Are OBL, FACW, or FAC:	1 (A)
				Total Number of Dominant	4 (D)
				Species Across All Strata:	1 (B)
				Percent of Dominant Species	100.00/ (A)
					100.0% (A/
		=Total Cover		Prevalence Index worksheet:	
					lultiply by:
50% of total cover:	20%	of total cover:		OBL species $65   x 1 =$ FACW species $5   x 2 =$	65
pling/Shrub Stratum (Plot size: 15	_)				10
				FAC species $15 \times 3 =$	45
				FACU species 5 x 4 =	20
				UPL species $0 \times 5 =$	0
				Column Totals: 90 (A)	140
				Prevalence Index = B/A =	1.56
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Ve	getation
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^{1}$	
		=Total Cover		4 - Morphological Adaptations <sup>1</sup> (P	
50% of total cover:	20%	of total cover:		data in Remarks or on a separa	
erb Stratum (Plot size: 5)				Problematic Hydrophytic Vegetati	on' (Explain)
Echinochloa crus-galli	10	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland h	
Carex vulpinoidea	65	Yes	OBL	present, unless disturbed or problema	
Lespedeza cuneata	5	No	FACU	Definitions of Four Vegetation Strat	a:
Setaria pumila	5	No	FAC	Tree – Woody plants, excluding vines	
Scirpus cyperinus	5	No	FACW	more in diameter at breast height (DB height.	H), regardless
				neight.	
				Sapling/Shrub – Woody plants, exclu	
				than 3 in. DBH and greater than or eq m) tall.	ual to 3.28 ft
				m) tan.	
				Herb – All herbaceous (non-woody) pl	
				of size, and woody plants less than 3.2	28 ft tall.
		=Total Cover		Woody Vine – All woody vines greate	er than 3.28 ft in
50% of total cover:	45 20%	of total cover:	18	height.	
oody Vine Stratum (Plot size: 30	)				
		=Total Cover		Hydrophytic	
				Vegetation	
50% of total cover:	000/	of total cover:		Present? Yes X No	

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Sampling Point: W009
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· · · · ·	(moist) %		x Featur	es				
0-6 2.5)	(	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	e Remarks	
	/R 4/1 90	10YR 4/6	10	С	Μ	Loamy/Clay	yey sandy loam	
		·						
Type: C=Concentratio	n, D=Depletion, R	M=Reduced Matrix, M	S=Maske	ed Sand	Grains.	<sup>2</sup> L	ocation: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators Histosol (A1) Histic Epipedon (A) Black Histic (A3) Hydrogen Sulfide (, Stratified Layers (A 2 cm Muck (A10) (I Depleted Below Da Thick Dark Surface Sandy Mucky Mine Sandy Gleyed Mati Sandy Redox (S5) Stripped Matrix (S6 Dark Surface (S7)	2) (5) L <b>RR N)</b> Irk Surface (A11) (A12) (A12) ral (S1) rix (S4)	Polyvalue Ba Thin Dark Su Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depr Iron-Mangar MLRA 130 Umbric Surfa Piedmont Fl Red Parent	urface (S ay Minera ed Matrix trix (F3) Surface rk Surface essions ( esse Mas 5) ace (F13) podplain	9) (MLR al (F1) (M c (F2) (F6) ce (F7) F8) sses (F12 ) (MLRA Soils (F1	A 147, 14 LRA 136 () (LRR N 122, 136 9) (MLR)	18) )) I, A 148)	Indicators for Problematic Hydric S 2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) <sup>3</sup> Indicators of hydrophytic vegetation a wetland hydrology must be prese unless disturbed or problematic.	and
Restrictive Layer (if o Type:	<b>bserved):</b> Gravel							
Depth (inches):	6					Hydric Soil	il Present? Yes X No	

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mount See ERDC/EL TR-12-9; the proponent agency	ains and Piedmont Region Regiverent Control Symbol EXEMPT:
Subregion (LRR or MLRA):       LRR N       Lat: 37.790         Soil Map Unit Name:       FiD - Fiveblock, Fairpoint, and Kaymine soils, 6 th         Are climatic / hydrologic conditions on the site typical for this time of year         Are Vegetation       , Soil         X       , or Hydrology         significantly prob	o 30 percent slopes, stony       NWI classification:       None         ar?       Yes       X       No       (If no, explain in Remarks.)         isturbed?       Are "Normal Circumstances" present?       Yes       X       No
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No         Remarks:       Wetland point assoicated with Wetland 010. Soils have been significant	Is the Sampled Area within a Wetland? Yes X No ntly disturbed from past land use a surface coal mine.
Water Marks (B1) Presence of Reduce	dor (C1)       Drainage Patterns (B10)         res on Living Roots (C3)       Moss Trim Lines (B16)         od Iron (C4)       Dry-Season Water Table (C2)         on in Tilled Soils (C6)       Crayfish Burrows (C8)         C7)       Saturation Visible on Aerial Imagery (C9)
Field Observations:         Surface Water Present?       Yes       No       X       Depth (inch         Water Table Present?       Yes       No       X       Depth (inch         Saturation Present?       Yes       No       X       Depth (inch         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos         Remarks:       Remarks:	nes): 0 Wetland Hydrology Present? Yes X No

	Absolute	Dominant	Indicator		
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet:	
1				Number of Dominant Species	
<u> </u>				That Are OBL, FACW, or FAC:	2 (A)
l				Total Number of Dominant	
				Species Across All Strata:	2 (B)
i				Percent of Dominant Species	
i.					100.0% (A/E
				Prevalence Index worksheet:	
	:	=Total Cover		Total % Cover of: M	ultiply by:
50% of total cover:	20%	of total cover:		OBL species 45 x 1 =	45
apling/Shrub Stratum (Plot size: 15	)			FACW species 20 x 2 =	40
	./			FAC species $15 \times 3 =$	45
	·				0
	·				
	·			UPL species $0 \times 5 =$	0(
·	·			Column Totals: 80 (A)	130 (
· .				Prevalence Index = B/A =	1.63
·				Hydrophytic Vegetation Indicators:	
	. <u> </u>			1 - Rapid Test for Hydrophytic Veg	getation
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^1$	
		Total Cover		4 - Morphological Adaptations <sup>1</sup> (P	rovide supportir
50% of total cover:	20%	of total cover:		data in Remarks or on a separa	ate sheet)
Herb Stratum (Plot size: 5 )				Problematic Hydrophytic Vegetation	on <sup>1</sup> (Explain)
. Echinochloa crus-galli	5	No	FAC	<sup>1</sup> Indicators of hydric soil and wetland h	
. Carex vulpinoidea	45	Yes	OBL	present, unless disturbed or problema	, ,,
Microstegium vimineum	5	No	FAC	Definitions of Four Vegetation Strat	
. Iva annua	5	No	FAC	-	
	20	Yes	FACW	Tree – Woody plants, excluding vines more in diameter at breast height (DB	
	20	res	FACW	height.	n), regardless (
	·			Sapling/Shrub – Woody plants, exclu	
·	·			than 3 in. DBH and greater than or equal that much that much the much that the much the much the much that the much that the much that the much that the much the m	ual to 3.28 ft
				Herb - All herbaceous (non-woody) pl	
0.	·				
				of size, and woody plants less than 3.2	
	80	=Total Cover			28 ft tall.
1.		=Total Cover of total cover:	16	of size, and woody plants less than 3.2	28 ft tall.
150% of total cover:			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1.           50% of total cover:			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.
1			16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate height.	28 ft tall.
1	40 20%		16	of size, and woody plants less than 3.2 Woody Vine – All woody vines greate	28 ft tall.

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Sampling Point: W010
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0-6       2.5YR 4/1       95       10YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       2.5YR 4/1       95       10YR 4/6       5       C       M       Loamy/Clayey       sandy loam         0-6       2.5YR 4/1       95       10YR 4/6       5       C       M       Loamy/Clayey       sandy loam         1       10	Depth	Matrix	0/		x Featur		1 2	T		P	
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric Sc         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       2 cam Muck (A10) (MLRA 147)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Pledmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Red Parent Material (F21)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       avetland hydrology must be presen         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       avetland hydrology must be presen         Dark Surface (I77)       Red Parent Material (F21) (MLRA 148)       avetland hydrology must be presen         Sandy Gleyed Matrix (S6)       Piedmont Floodplain Soils (F19) (ML	incnes)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	I exture		Remar	KS
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histosol (A1)       Thin Dark Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Opeleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         Type:       Gravel	0-6	2.5YR 4/1	95	10YR 4/6	5	С	M	Loamy/Cla	уеу	sandy loam	
ydric Soil Indicators:       Indicators for Problematic Hydric So         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Type:       Gravel       Gravel											
Arrow of the structure       Mistore Soil Indicators:       Indicators for Problematic Hydric Soi         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         Bark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         Type:       Gravel       Gravel       Material (F21) (MLRA 127, 147, 148)				Roduced Metrix M				21		Doro Lining M-N	Actrix
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         Bark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         rype:       Gravel       Yery       Yery Shallow Dark Surface (S7)       Yery Shallow Dark Surface (S7)	71	, 1		Reduced Matrix, M	S-IVIASK	eu Sanu (	Jianis.	L		0,	
Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Red Parent Material (F21)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         Estrictive Layer (if observed):       Type:       Gravel	-			Polyvalue Be	-low Surf	face (S8)	(MI RA 1	47 148)			•
Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       unless disturbed or problematic.         Type:       Gravel		,				. ,	•				-
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel		. ,				<i>,</i> .					10)
Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation an wetland hydrology must be presen unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel		. ,			-			,	•		oils (F19)
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation and wetland hydrology must be presen unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be presen unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel		( )				( )				•	( - )
Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation at wetland hydrology must be presen         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.	2 cm Muc	k (A10) <b>(LRR N)</b>		Redox Dark	Surface	(F6)			Red Pa	arent Material (F2	21)
Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation an         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       3Indicators of hydrophytic vegetation an         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel	Depleted	Below Dark Surface	(A11)	Depleted Da	rk Surfac	ce (F7)			(outs	side MLRA 127,	147, 148)
Sandy Gleyed Matrix (S4)       MLRA 136)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)         estrictive Layer (if observed):       Type:         Gravel       Gravel	Thick Dar	k Surface (A12)		Redox Depre	essions (	F8)			Very S	hallow Dark Surf	ace (F22)
Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be presended by the presend by the presended by the presended by the presended	Sandy Mu	cky Mineral (S1)		Iron-Mangar	ese Mas	ses (F12	) (LRR N	,	Other (	Explain in Rema	rks)
Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be presen         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel	Sandy Gle	eyed Matrix (S4)		MLRA 13	5)						
Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:       Gravel	Sandy Re	dox (S5)		Umbric Surfa	ace (F13	) (MLRA	122, 136	)	<sup>3</sup> Indicators	of hydrophytic ve	egetation and
estrictive Layer (if observed): Type: Gravel	Stripped N	/latrix (S6)		Piedmont Fl	oodplain	Soils (F1	9) <b>(MLRA</b>	A 148)	wetland	d hydrology must	t be present,
Type: Gravel	Dark Surfa	ace (S7)		Red Parent	Material	(F21) <b>(MI</b>	RA 127,	147, 148)	unless	disturbed or prol	blematic.
	estrictive La	ayer (if observed):									
	Туре:	Grav	el								
Depth (inches):         6         Hydric Soil Present?         Yes         X         No	Depth (inc	hes):	6					Hydric So	il Present?	Yes X	No
temarks: Soils have been significantly disturbed from past land use a surface coal mine. Prominent redox concentrations.		en significantly distu	bed from p	past land use a sur	face coa	l mine. Pi	rominent	redox concen	trations.		

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mounta See ERDC/EL TR-12-9; the proponent agency	ins and Piedmont Region Requirement Control Symbol EXEMPT:
Project/Site:       Lynn Bark Energy Center         Applicant/Owner:       Lynn Bark Energy Center, LLC         Investigator(s):       M. Johnson, T. Parrish         Landform (hillside, terrace, etc.):       Depression       Lo	City/County: <u>Martin</u> Sampling Date: <u>08/11/2024</u> State: <u>KY</u> Sampling Point: <u>W011</u> Section, Township, Range: <u>N/A</u> cal relief (concave, convex, none): <u>Concave</u> Slope (%): <u>1</u>
Subregion (LRR or MLRA):       LRR N       Lat: 37.790         Soil Map Unit Name:       FiD - Fiveblock, Fairpoint, and Kaymine soils, 6 to         Are climatic / hydrologic conditions on the site typical for this time of year         Are Vegetation       , Soil X , or Hydrology       significantly directly directl	v 30 percent slopes, stony     NWI classification:     None       r?     Yes     X     No     (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologynaturally problem SUMMARY OF FINDINGS – Attach site map showing statements and statements	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     X     No       Hydric Soil Present?     Yes     X     No       Wetland Hydrology Present?     Yes     X     No	Is the Sampled Area within a Wetland? Yes X No
Remarks: Wetland point assoicated with Wetland 011. Soils have been significan	lly disturbed from past land use a surface coal mine.
Wetland Hydrology Indicators:           Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1)     True Aquatic Plants       High Water Table (A2)     Hydrogen Sulfide Oc	B14)       Sparsely Vegetated Concave Surface (B8)         or (C1)       Drainage Patterns (B10)         es on Living Roots (C3)       Moss Trim Lines (B16)         d Iron (C4)       Dry-Season Water Table (C2)         n in Tilled Soils (C6)       Crayfish Burrows (C8)         C7)       Saturation Visible on Aerial Imagery (C9)
Surface Water Present?       Yes       No       X       Depth (inch         Water Table Present?       Yes       No       X       Depth (inch         Saturation Present?       Yes       X       No       Depth (inch         (includes capillary fringe)	0         Wetland Hydrology Present?         Yes X         No
Remarks:	

	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Dominance Test worksheet	:		
				Number of Dominant Species			
				That Are OBL, FACW, or FAC	): 	2	(A)
				Total Number of Dominant			
·				Species Across All Strata:		2	(B)
				Percent of Dominant Species			
				That Are OBL, FACW, or FAC		100.0%	_(A/
				Prevalence Index workshee	t:		
		=Total Cover		Total % Cover of:	Mu	ultiply by:	
50% of total cover:	20%	of total cover:		OBL species 30	x 1 =	30	
apling/Shrub Stratum (Plot size: 15	)			FACW species 40	x 2 =	80	
				FAC species 0	x 3 =	0	
				FACU species 0	x 4 =	0	
				UPL species 0	x 5 =	0	
				Column Totals: 70	(A)	110	
				Prevalence Index =	B/A =	1.57	
				Hydrophytic Vegetation Ind	icators:		_
				1 - Rapid Test for Hydrop		etation	
				X 2 - Dominance Test is >5		,	
				X 3 - Prevalence Index is ≤			
		=Total Cover		4 - Morphological Adapta		ovide sur	oporti
50% of total cover:		of total cover:		data in Remarks or on			
erb Stratum (Plot size: 5 )	20%			Problematic Hydrophytic	Vegetatic	, n <sup>1</sup> (Evola	ain)
. Scirpus cyperinus	30	Yes	FACW		-		
	20		OBL	<sup>1</sup> Indicators of hydric soil and		, ,,	must
		Yes		present, unless disturbed or p			
Setaria pumila	10	No	OBL	Definitions of Four Vegetati			
Bidens aristosa	10	No	FACW	Tree – Woody plants, excludi more in diameter at breast he			
				height.	адат (рвг	n), regard	ness
				Sapling/Shrub – Woody plan		0	
				than 3 in. DBH and greater th m) tall.	an or equ	ial to 3.28	3 ft
				III) tali.			
D				Herb – All herbaceous (non-v	571		ardles
1				of size, and woody plants less	s than 3.2	.8 ft tall.	
	70 :	=Total Cover		Woody Vine – All woody vine	es greater	<sup>-</sup> than 3.2	8 ft i
50% of total cover:	35 20%	of total cover:	14	height.			
Voody Vine Stratum (Plot size: 30	)						
· · · · · · · · · · · · · · · · · · ·							
				Hydrophytic			
		=Total Cover					
		=Total Cover of total cover:		Vegetation Present? Yes X	No		

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Sampling Point: W011
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Depth	Matrix		Redo	x Featur	es					
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	·	Rem	arks
0-6	2.5YR 4/1	90	10YR 4/6	10	С	Μ	Loamy/Cla	уеу	sandy loan	1
Type: C=Co	ncentration, D=Deple	tion, RM=	Reduced Matrix, M	S=Maske	ed Sand	Grains.	²L	ocation: PL=I	Pore Lining, N	I=Matrix.
Black His Hydrogen Stratified 2 cm Muc Depleted Thick Dar Sandy Mi Sandy Gl Sandy Re	A1) pedon (A2) tic (A3) Sulfide (A4) Layers (A5) tk (A10) <b>(LRR N)</b> Below Dark Surface k Surface (A12) Jucky Mineral (S1) eyed Matrix (S4) edox (S5) Matrix (S6)	(A11)	Polyvalue Be Thin Dark Si Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangar MLRA 130 Umbric Surfa Piedmont Flu Red Parent 1	urface (S cy Minera ed Matrix trix (F3) Surface rk Surface essions ( esse Mas <b>5)</b> cace (F13 codplain	9) (MLR al (F1) (M (F2) (F6) ce (F7) F8) sses (F12 ) (MLRA Soils (F1	2) (LRR N 122, 136 9) (MLR.	48) 5) 4, 5) A 148)	2 cm M Coast F (MLR Piedmo (MLR Red Pa (outs Very SI Other ( <sup>3</sup> Indicators o wetland	uck (A10) ( <b>M</b> Prairie Redox <b>A 147, 148</b> ) ant Floodplain <b>A 136, 147</b> ) arrent Material <b>ide MLRA 12</b> hallow Dark S Explain in Rei	(A16) Soils (F19) (F21) <b>7, 147, 148)</b> urface (F22) marks) vegetation and ust be present,
Type: _ Depth (in Remarks:	ayer (if observed): Grav ches): en significantly distu	6	past land use a sur	face coa	I mine. P	rominent	Hydric Soi		Yes_X	No

U.S. Arm WETLAND DETERMINATION DATA S See ERDC/EL TR-12-9; t		ains and Piedmont Regior	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Energy Center Applicant/Owner: Lynn Bark Energy Center Investigator(s): M. Johnson, T. Parrish Landform (hillside, terrace, etc.): Toe of St Subregion (LRR or MLRA): LRR N		City/County: <u>Martin</u> Section, Township, Range: cal relief (concave, convex, n 082 Long: -8	one): <u>Concave</u> Slope (%): <u>1</u>
Soil Map Unit Name: FiD - Fiveblock, Fairpe Are climatic / hydrologic conditions on the sit Are Vegetation, Soil, or Hydre Are Vegetation, Soil, or Hydre SUMMARY OF FINDINGS – Attack	e typical for this time of yea ology significantly di ology naturally probl	ar? Yes X sturbed? Are "Normal Cir ematic? (If needed, expl	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: Wetland point assoicated with Wetland 012	. Soils have been significan	ntly disturbed from past land u	se a surface coal mine.
Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on Aerial Imagery (B         Water-Stained Leaves (B9)         Aquatic Fauna (B13)	True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizospher Presence of Reduce Recent Iron Reductio Thin Muck Surface ( Other (Explain in Re	dor (C1) res on Living Roots (C3) d Iron (C4) on in Tilled Soils (C6) C7)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Describe Recorded Data (stream gauge, model)         Remarks:       Remarks:	No X Depth (inch No X Depth (inch No X Depth (inch onitoring well, aerial photos	es): 0 Wetland H	lydrology Present? Yes X No ilable:

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species	2 (4)
				That Are OBL, FACW, or FAC:	2 (A)
				Total Number of Dominant	2 (D)
				Species Across All Strata:	2 (B)
				Percent of Dominant Species	400.00/ (4/
				That Are OBL, FACW, or FAC:	100.0% (A/E
		=Total Cover			Multiply by
F0% of total anyon				Total % Cover of:	Multiply by:
50% of total cover:	20%	of total cover:		OBL species 70 x 1 FACW species 20 x 2	
apling/Shrub Stratum (Plot size: 15	_)				
				FACU species 5 x 4	
				UPL species 0 x 5	
				Column Totals: 95 (A)	130 (
				Prevalence Index = B/A =	
				Hydrophytic Vegetation Indicator	
				1 - Rapid Test for Hydrophytic	/egetation
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^{1}$	
		=Total Cover		4 - Morphological Adaptations <sup>1</sup>	· · · ·
50% of total cover:	20%	of total cover:		data in Remarks or on a sep	,
erb Stratum (Plot size: 5)				Problematic Hydrophytic Vegeta	ation <sup>1</sup> (Explain)
Lespedeza cuneata	5	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland	d hydrology must l
Carex vulpinoidea	60	Yes	OBL	present, unless disturbed or problem	natic.
Setaria pumila	10	No	OBL	Definitions of Four Vegetation Str	ata:
	00	Yes	FACW	Tree - Woody plants, excluding vin	aa 2 in (7.6 am)
Bidens aristosa	20				
Bidens aristosa	20			more in diameter at breast height (D	
Bidens aristosa					
Bidens anstosa				more in diameter at breast height (D	OBH), regardless o
Bidens anstosa				more in diameter at breast height (E height. Sapling/Shrub – Woody plants, exe than 3 in. DBH and greater than or	DBH), regardless of
Bidens aristosa				more in diameter at breast height (E height. Sapling/Shrub – Woody plants, exc	DBH), regardless of
				more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, ex than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody)	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles
				more in diameter at breast height (E height. Sapling/Shrub – Woody plants, exe than 3 in. DBH and greater than or o m) tall.	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardless
		=Total Cover		more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, ex than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody)	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardless 3.28 ft tall.
	95	=Total Cover of total cover:	19	more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardless 3.28 ft tall.
0 1 50% of total cover:	95		19	more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
0	95		19	more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
). 1	95			more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
)	95			more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
)	95		19	more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
)	95		19	more in diameter at breast height (E height. <b>Sapling/Shrub</b> – Woody plants, exit than 3 in. DBH and greater than or m) tall. <b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than <b>Woody Vine</b> – All woody vines great	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardles 3.28 ft tall.
). 1		of total cover:	19	more in diameter at breast height (E height. Sapling/Shrub – Woody plants, exit than 3 in. DBH and greater than or of m) tall. Herb – All herbaceous (non-woody) of size, and woody plants less than Woody Vine – All woody vines great height. Hydrophytic	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardless 3.28 ft tall.
	<u>95</u> 48 20%		19	more in diameter at breast height (E height. Sapling/Shrub – Woody plants, exit than 3 in. DBH and greater than or of m) tall. Herb – All herbaceous (non-woody) of size, and woody plants less than Woody Vine – All woody vines great height. Hydrophytic Vegetation	DBH), regardless of cluding vines, less equal to 3.28 ft plants, regardless 3.28 ft tall.

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Sampling Point: W012
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epth	Matrix		Redo	x Featur	es					
nches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	)	Rema	arks
0-6	2.5YR 4/1	90	10YR 4/6	10	С	М	Loamy/Cla	yey	sandy loam	
				_	_					
		_		_						
ype: C=Co	oncentration, D=Deple	tion, RM=	Reduced Matrix, M	S=Maske	ed Sand (	Grains.	<sup>2</sup> L	ocation: PL=	Pore Lining, M	=Matrix.
ydric Soil	Indicators:								for Problemat	-
Histosol	· ,		Polyvalue Be		• • •	•			luck (A10) <b>(ML</b>	-
Histic Ep	oipedon (A2)		Thin Dark Su	urface (S	9) <b>(MLR</b>	A 147, 14	8)	Coast	Prairie Redox (	A16)
Black Hi	stic (A3)		Loamy Muck	ky Minera	al (F1) <b>(M</b>	LRA 136	)	(MLF	RA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)			Piedmo	ont Floodplain \$	Soils (F19)
Stratified	d Layers (A5)		X Depleted Ma	atrix (F3)				(MLF	RA 136, 147)	
2 cm Mu	ıck (A10) <b>(LRR N)</b>		Redox Dark	Surface	(F6)			Red Pa	arent Material (	F21)
Depleted	d Below Dark Surface	(A11)	Depleted Da	rk Surfac	ce (F7)			(outs	ide MLRA 127	′, 147, 148)
Thick Da	ark Surface (A12)		Redox Depre	essions (	F8)			Very S	hallow Dark Su	rface (F22)
Sandy N	lucky Mineral (S1)		Iron-Mangar	nese Mas	sses (F12	) (LRR N	,	Other (	Explain in Rem	arks)
Sandy G	Bleyed Matrix (S4)		MLRA 13	6)						
Sandy R	Redox (S5)		Umbric Surfa	ace (F13	) (MLRA	122, 136	)	<sup>3</sup> Indicators	of hydrophytic	vegetation and
Stripped	Matrix (S6)		Piedmont Fl	oodplain	Soils (F1	9) <b>(MLR</b> /	A 148)	wetland	d hydrology mu	st be present,
_Dark Su	rface (S7)		Red Parent	Material	(F21) <b>(MI</b>	.RA 127,	147, 148)	unless	disturbed or pr	oblematic.
estrictive I	Layer (if observed):									
Type:	Grav	el								
Depth (ir	nches):	6					Hydric So	I Present?	Yes X	No
emarks:										
oils have be	een significantly distu	bed from	past land use a sur	face coa	l mine. Pi	ominent	redox concen	trations.		

WETLAND DETERMINATION DATA	U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Regineers See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R								
Project/Site: Lynn Bark Solar Project		City/County	: Inez / Martin		Sampling Date:	08-11-2024			
Applicant/Owner: Lynn Bark Energy Fa	acility, LLC			State: KY	Sampling Point:	w013			
Investigator(s): Ralph Schuler, Andrew Jas		Section, Townsl	nip. Range:	N/A					
Landform (hillside, terrace, etc.): Flat		- ocal relief (concav		). Concave	Slope (%):	3%			
Subregion (LRR or MLRA): LRR N	Lat: 37.786		Long: -82.5		/	NAD83			
Soil Map Unit Name: Fiveblock, Fairpoint			Long02.50	NWI classificatio		NAD03			
· · · · · · · · · · · · · · · · · · ·		-							
Are climatic / hydrologic conditions on the s					plain in Remark	,			
Are Vegetation N, Soil Y, or Hyd			e "Normal Circun	nstances" present?	Yes N	No			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hyd	rology <u>N</u> naturally prob	lematic? (If	needed, explain	any answers in Rem	arks.)				
SUMMARY OF FINDINGS - Attac	h site map showing	sampling poi	nt locations,	transects, imp	ortant featur	es, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sample within a Wetla		Yes X	No				
HYDROLOGY Wetland Hydrology Indicators:			Sec	condary Indicators (n	ninimum of two r	equired)			
Primary Indicators (minimum of one is requ	uired; check all that apply)			Surface Soil Cracks					
Surface Water (A1)	True Aquatic Plants	(B14)		Sparsely Vegetated	Concave Surface	ce (B8)			
High Water Table (A2)	Hydrogen Sulfide Od	dor (C1)		Drainage Patterns (	B10)				
X Saturation (A3)	X Oxidized Rhizosphe	-	ts (C3)	Moss Trim Lines (B					
Water Marks (B1)	Presence of Reduce	. ,	<u> </u>	Dry-Season Water					
Sediment Deposits (B2)	Recent Iron Reducti		(C6)	Crayfish Burrows (C Saturation Visible o					
Drift Deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface ( Other (Explain in Re			Stunted or Stressed		(09)			
Iron Deposits (B5)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Geomorphic Positio	. ,				
Inundation Visible on Aerial Imagery (	37)			Shallow Aquitard	(D3)				
X Water-Stained Leaves (B9)				Microtopographic R	elief (D4)				
Aquatic Fauna (B13)				FAC-Neutral Test (I	05)				
Field Observations:									
Surface Water Present? Yes		nes):							
Water Table Present?YesSaturation Present?YesX	No <u>X</u> Depth (inch No Depth (inch	nes):	Wotland Hydr	ology Present?	Voc V	No			
(includes capillary fringe)		les). <u>4</u>	wettand riyur	ology Fresent?	Yes X	NO			
Describe Recorded Data (stream gauge, n	onitoring well, aerial photos	s. previous inspec	tions), if availabl	e:					
( 5×490,	5 , p. 1000	,,	,,						
Remarks:									
1									

	Absolute	Dominant	Indicator		
ee Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:	
Salix nigra	10	Yes	OBL	Number of Dominant Species	
				That Are OBL, FACW, or FAC:	<u>6</u> (A
				Total Number of Dominant	
				Species Across All Strata:	6 (I
				Percent of Dominant Species	
				That Are OBL, FACW, or FAC: 10	)0.0% (/
				Prevalence Index worksheet:	
	10	=Total Cover		Total % Cover of: Mul	tiply by:
50% of total cover:	5 20%	of total cover:	2	OBL species 45 x 1 =	45
pling/Shrub Stratum (Plot size: 15'	)			FACW species 42 x 2 =	84
Salix nigra	5	Yes	OBL	FAC species 4 x 3 =	12
Acer negundo	2	Yes	FAC	FACU species 0 x 4 =	0
Acer rubrum	2	Yes	FAC	UPL species $0 \times 5 =$	0
10011000		100	1710	Column Totals: 91 (A)	141
				Prevalence Index = B/A =	1.55
					1.55
				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vege	etation
				X 2 - Dominance Test is >50%	
				X 3 - Prevalence Index is $\leq 3.0^1$	
	9	=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Pro	
50% of total cover:	5 20%	of total cover:	2	data in Remarks or on a separate	e sheet)
erb Stratum (Plot size: 5')				Problematic Hydrophytic Vegetation	n <sup>1</sup> (Explain)
Carex lurida	30	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hy	droloav mu
Scirpus cyperinus	40	Yes	FACW	present, unless disturbed or problemation	
Bidens frondosa	2	No	FACW	Definitions of Four Vegetation Strata	
				<b>Tree</b> – Woody plants, excluding vines, 3	
				more in diameter at breast height (DBH	
				height.	
				Conting/Chruth Woody plants system	
				Sapling/Shrub – Woody plants, exclude than 3 in. DBH and greater than or equa	•
				m) tall.	. 10 0.20 11
·				Herb – All herbaceous (non-woody) plan of size, and woody plants less than 3.28	
·					
		=Total Cover		Woody Vine – All woody vines greater	than 3.28 ft
50% of total cover:	36 20%	of total cover:	15	height.	

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Sampling Point: w013
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	iption: (Describe to	o the deptr				or or com	firm the absend	ce of indicato	ors.)	
Depth	Matrix			x Featur		. 2			_	
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remar	KS
0-10	10YR 5/1	90	10YR 5/8	10	RM	PL/M	Loamy/Claye	ey	sandy loam	
				_						
					_					
ype: C=Cor	ncentration, D=Deple	etion, RM=F	Reduced Matrix, M	S=Maske	ed Sand	Grains.	<sup>2</sup> Loc	cation: PL=P	ore Lining, M=	Matrix.
ydric Soil In	idicators:							Indicators for	or Problematio	c Hydric Soils
Histosol (A	A1)		Polyvalue Be	elow Surf	face (S8)	(MLRA 1	47, 148)	2 cm Mu	ck (A10) <b>(MLF</b>	RA 147)
Histic Epip	pedon (A2)		Thin Dark Su	urface (S	9) <b>(MLR</b> /	A 147, 14	8)	Coast Pr	airie Redox (A	.16)
Black Hist	tic (A3)		Loamy Muck	y Minera	al (F1) <b>(M</b>	LRA 136	)	(MLRA	A 147, 148)	
Hydrogen	Sulfide (A4)		Loamy Gleye	ed Matrix	: (F2)			Piedmor	it Floodplain S	oils (F19)
Stratified I	Layers (A5)		X Depleted Ma	trix (F3)				(MLRA	A 136, 147)	
2 cm Muc	k (A10) <b>(LRR N)</b>		Redox Dark	Surface	(F6)			Red Par	ent Material (F	21)
Depleted I	Below Dark Surface	(A11)	Depleted Da	rk Surfac	ce (F7)			(outsi	de MLRA 127,	147, 148)
Thick Darl	k Surface (A12)		Redox Depre	essions (	F8)			Very Sha	allow Dark Surf	face (F22)
-	ucky Mineral (S1) eyed Matrix (S4)		Iron-Mangar MLRA 136		ses (F12	) (LRR N	3	Other (E	xplain in Rema	arks)
Sandy Re	dox (S5)		Umbric Surfa	ace (F13	) (MLRA	122, 136)	)	<sup>3</sup> Indicators of	hydrophytic v	egetation and
Stripped N	Matrix (S6)		Piedmont Flo	oodplain	Soils (F1	9) (MLRA	A 148)	wetland	hydrology mus	t be present,
Dark Surfa	ace (S7)		Red Parent I	Material	(F21) <b>(M</b> I	RA 127,	147, 148)	unless d	isturbed or pro	blematic.
estrictive La	ayer (if observed):									
	ches):	10					Hydric Soil F	Present?	Yes X	No
Depth (Inc		10							100 //	110

WETLAND DETERMINATION DATA	U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Regi See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R								
Project/Site: Lynn Bark Solar Project		City/County: I	nez / Martin		Sampling Date:	08-10-2024			
Applicant/Owner: Lynn Bark Energy F	acility, LLC			State: KY	Sampling Point:	<u>w014</u>			
Investigator(s): Ralph Schuler, Andrew Ja	skowiak	Section, Township	. Range:	N/A	•				
Landform (hillside, terrace, etc.): Flat		ocal relief (concave,	-	). Concave	Slope (%):	3%			
Subregion (LRR or MLRA): LRR N	Lat: 37.789		Long: -82.54			NAD83			
Soil Map Unit Name: Fiveblock, Fairpoint			Long	NWI classificati		10,000			
· · · ·				_		``			
Are climatic / hydrologic conditions on the s					xplain in Remark				
Are Vegetation N, Soil Y, or Hyd				nstances" present?	Yes N	N0			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hyd	Irology <u>N</u> naturally prob	olematic? (If ne	eded, explain	any answers in Rem	narks.)				
SUMMARY OF FINDINGS – Attac	ch site map showing	sampling point	locations,	transects, imp	ortant featur	es, etc.			
Hydrophytic Vagatation Procent?	Van V No	Is the Sempled	Aroo						
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No Yes X No	Is the Sampled A within a Wetland		Yes X	No				
Wetland Hydrology Present?	Yes X No		u.		<u> </u>				
Remarks:									
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is req Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Interfective the back to be set	True Aquatic Plants Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti Thin Muck Surface ( Other (Explain in Re	dor (C1) eres on Living Roots ed Iron (C4) ion in Tilled Soils (C6 (C7)	(C3)	condary Indicators (r Surface Soil Crack Sparsely Vegetated Drainage Patterns Moss Trim Lines (E Dry-Season Water Crayfish Burrows (r Saturation Visible of Stunted or Stresse Geomorphic Positio	s (B6) d Concave Surfac (B10) 316) Table (C2) C8) on Aerial Imagery d Plants (D1) on (D2)	ce (B8)			
Inundation Visible on Aerial Imagery (	B7)			Shallow Aquitare	( )				
Water-Stained Leaves (B9)				Microtopographic F					
Aquatic Fauna (B13)		I		FAC-Neutral Test (	00)				
Field Observations: Surface Water Present? Yes	No X Depth (incl	hes):							
Surface Water Present?     Yes       Water Table Present?     Yes	No X Depth (incl No X Depth (incl	hes): hes):							
Saturation Present? Yes X	No Depth (incl		Netland Hydr	ology Present?	Yes X	No			
(includes capillary fringe)		·	-						
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos	s, previous inspectio	ns), if availabl	e:					
Remarks:									

	Absolute	Dominant	Indicator				
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet			
				Number of Dominant Species		0	( • )
				That Are OBL, FACW, or FAC	·	2	(A)
				Total Number of Dominant Species Across All Strata:		2	(D)
				Species Across All Strata:		2	(B)
				Percent of Dominant Species		100.0%	( )
				That Are OBL, FACW, or FAC Prevalence Index workshee		100.0%	(A/
		=Total Cover		Total % Cover of:		ultiply by:	
50% of total cover:				OBL species 40	x 1 =	ultiply by: 40	
apling/Shrub Stratum (Plot size:		or total cover.		FACW species 30	x 2 =	60	
	_)					30	
					x 3 =		
					x 4 =	0	
				UPL species 0	x 5 =	0	
					(A)	130	
				Prevalence Index =		1.63	
				Hydrophytic Vegetation Ind			
				1 - Rapid Test for Hydrop		getation	
				X 2 - Dominance Test is >5			
				$X_3$ - Prevalence Index is ≤			
		=Total Cover		4 - Morphological Adapta data in Remarks or on	•		porti
50% of total cover:	20%	of total cover:				,	
erb Stratum (Plot size: 5')				Problematic Hydrophytic	Vegetati	on' (Expla	in)
Carex Iurida	40	Yes	OBL	<sup>1</sup> Indicators of hydric soil and v		, ,,	nust
Scirpus cyperinus	10	No	FACW	present, unless disturbed or p			
Juncus effusus	20	Yes	FACW	Definitions of Four Vegetati	on Strat	a:	
Arthraxon hispidus	5	No	FAC	Tree – Woody plants, excludi			
Setaria pumila	5	No	FAC	more in diameter at breast he height.	ight (DB	H), regard	less
				neight.			
				Sapling/Shrub – Woody plan		0	
				than 3 in. DBH and greater th m) tall.	an or eq	ual to 3.28	; ft
				,			
				Herb – All herbaceous (non-v			rdles
).				of size, and woody plants less	s than 3.2	28 ft tall.	
						r than 2 00	3 ft ir
	80	=Total Cover		Woody Vine – All woody vine	s greate	r than 3.20	
		=Total Cover of total cover:	16	Woody Vine – All woody vine height.	es greate	r (nan 3.20	
50% of total cover:			16		es greate	1 (1181) 3.20	
50% of total cover:			16		es greate	1 (1141) 3.20	
50% of total cover:			16		es greate	n (nan 3.20	
50% of total cover:			16		es greate	n man 3.20	
50% of total cover:			16		es greate	f than 3.20	
50% of total cover:			16	height.	es greate	1 (1141) 3.20	
1 50% of total cover: /oody Vine Stratum (Plot size:)	<u>40</u> 20% ) 	of total cover:	16	height. Hydrophytic	es greate	1 (11411 3.20	
1	<u>40</u> 20%		16	height.	os greate		

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Sampling Point: w014
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epth	Matrix		Read	x Featur	es				
iches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-12	10YR 5/1	85	10YR 5/8	12	RM	PL/M	Loamy/Cla	уеу	sandy loam
		·			_	·			
		·		_	_	:			
		·				·	21		
/ .	ncentration, D=Depl	etion, Rivi=	Reduced Matrix, M	S=Mask	ed Sand	srains.	-L		Pore Lining, M=Matrix. For Problematic Hydric Soils
dric Soil I			Polyvalue B		faco (59)		47 440)		uck (A10) <b>(MLRA 147)</b>
Histosol (	,				. ,	•			
	ipedon (A2)		Thin Dark S		<i>,</i> ,	-	,		Prairie Redox (A16)
Black His	( )		Loamy Muck		• • •	LKA 130)			A 147, 148)
	n Sulfide (A4)		Loamy Gley						nt Floodplain Soils (F19)
	Layers (A5)		X Depleted Ma	. ,				-	A 136, 147)
	ck (A10) <b>(LRR N)</b>	( )	Redox Dark		` '				rent Material (F21)
	Below Dark Surface	(A11)	Depleted Da		. ,				ide MLRA 127, 147, 148)
-	rk Surface (A12)		Redox Depr		, ,				allow Dark Surface (F22)
	ucky Mineral (S1)		Iron-Mangar		sses (F12	) (LRR N,	I Contraction of the second	Other (I	Explain in Remarks)
	eyed Matrix (S4)		MLRA 13	,				2	
	edox (S5)		Umbric Surfa		<i>,</i> ,	. ,			of hydrophytic vegetation and
	Matrix (S6)		Piedmont Fl	oodplain	Soils (F1	9) <b>(MLRA</b>	. 148)		hydrology must be present,
Dark Sur	face (S7)		Red Parent	Material	(F21) <b>(MI</b>	RA 127,	147, 148)	unless	disturbed or problematic.
estrictive L Type:	ayer (if observed): Gravel								
Depth (in	ches):	12					Hydric Soi	I Present?	Yes X No
	conditions of satura						,	,	ric soil definition: "a soil that c conditions in the upper part

WETLAND DETERMINATION DATAS	U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Reg See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R								
Project/Site:       Lynn Bark Solar Project         Applicant/Owner:       Lynn Bark Energy Fax         Investigator(s):       Ralph Schuler, Andrew Jask         Landform (hillside, terrace, etc.):       Flat         Subregion (LRR or MLRA):       LRR N         Soil Map Unit Name:       Fiveblock, Fairpoint and         Are climatic / hydrologic conditions on the sit         Are Vegetation       N       , Soil       Y       , or Hydro         SUMMARY OF EINDINGS - Attack	Lat: <u>37.787</u> Lat: <u>37.787</u> Lat: <u>37.787</u> Lat: <u>37.787</u> Lat: <u>100</u> Lat: <u>100</u>	stoney ar? Yes X isturbed? Are "Normal Circur lematic? (If needed, explain	· · · · · ·						
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	Yes         X         No         No           Yes         X         No         No         No           Yes         X         No         No         No	Is the Sampled Area within a Wetland?	Yes X No						
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required)         Surface Water (A1)         High Water Table (A2)         X Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Inundation Visible on Aerial Imagery (B         Water-Stained Leaves (B9)         Aquatic Fauna (B13)	True Aquatic Plants Hydrogen Sulfide Od Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti Thin Muck Surface ( Other (Explain in Re	(B14) dor (C1) res on Living Roots (C3) ed Iron (C4) on in Tilled Soils (C6)	condary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)						
Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, modeling)         Remarks:	No X Depth (inch No Depth (inch	nes): 3 Wetland Hydr	rology Present? Yes <u>X</u> No le:						

aum (Plot size:)       >, Cover Species / Status       Status       Dominance rest worksheet:		Absolute	Dominant	Indicator	Denter Technologies		
Inst Are OBL, FACW, or FAC:       2       (A         Total Number of Dominant       Species Across All Strata:       2       (B         S0% of total cover:       20% of total cover:       Percent of Dominant Species         S0% of total cover:       20% of total cover:       OBL species       15       x1 =       15         Shrub Stratum       (Plot size:       )       FACW species       52       x2 =       104         FAC species       15       x3 =       45       5       42       20       184         Column Totals:       87       (A)       184       Prevalence Index sorksheet:       100.0%       14         FACW species       5       x4 =       20       20       45       5       0       2.11       14       14       20       14       2.11       14       14       2.11       14 <td>ree Stratum (Plot size:)</td> <td>% Cover</td> <td>Species?</td> <td>Status</td> <td>Dominance Test worksheet:</td> <td></td> <td></td>	ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:		
Total Number of Dominant Species Across All Strata:       2       (B						2	( • )
Species Across All Strata:       2       (B         Species Across All Strata:       2       (B         Species Across All Strata:       2       (B         Species Across All Strata:       100.0%       (A         Factor of Dominant Species       Total % Cover of:       Multiply by:         Shrub Stratum       (Plot size:)       Total % Cover of:       Multiply by:         Shrub Stratum       (Plot size:)       FACW species 52       x 2 =       104         FACW species       5       x 4 =       20       UPL species       5 x 4 =       20         UPL species       0       x 5 =       0       Column Totals:       87       (A)       184         Prevalence Index is 30.1       1       Rapid Test for Hydrophytic Vegetation Militators:       1       Rapid Test for Hydrophytic Vegetation Militators:         1						Ζ	_(A)
Percent of Dominant Species         That Are OBL, FACW, or FAC:         50% of total cover:         20% of total cover:         Shrub Stratum (Plot size:         )						2	(D)
That Are OBL, FACW, or FAC:       100.0% (A         Prevalence Index worksheet:						2	_(D)
Frevalence Index worksheet:         50% of total cover:       20% of total cover:         20% of total cover:       20% of total cover:         20% of total cover:       0BL species         1       15         X       1         1       10         1       1         20% of total cover:       20% of total cover:         2       104         1       1         1       2         1       2         1       2         1       2         1       2         1       2         1       2         1       2         1       2         1       2         1       2         1       2         2       2         2       2         2       3         2       30         2       2         2       30         2       30         2       30         2       30         2       30         2       30         2       30         30<						100.0%	()
Sow of total cover:       Total % Cover of:       Multiply by:         Shrub Stratum       (Plot size:       )       )       OBL species       15       x 1 =       15         Shrub Stratum       (Plot size:       )       -       -       -       OBL species       15       x 1 =       15         Shrub Stratum       (Plot size:       )       -						100.070	_(///
50% of total cover:       20% of total cover:         Shrub Stratum       (Plot size:         )       )			=Total Cover			Multiply by:	
Shrub Stratum       (Plot size:)	50% of total cover						
FAC species       15       x 3 =       45         FAC species       5       x 4 =       20         UPL species       0       x 5 =       0         UP roblematic hydrophytic Vegetation Indicators:       1       1 - Rapid Test for Hydrophytic Vegetation         Y 2 - Dominance Test is >50% of total cover:       20% of total cover:					· · · · · · · · · · · · · · · · · · ·		
FACU species       5       x 4 =       20         UPL species       0       x 5 =       0         Column Totals:       87       (A)       184         Prevalence Index = B/A =       2.11         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation		_					
UPL species       0       x 5 =       0         UPL species       0       x 5 =       0         Column Totals:       87       (A)       184         Prevalence Index = B/A =       2.11         Hydrophytic Vegetation Indicators:       1       Rapid Test for Hydrophytic Vegetation							
Column Totals:       87       (A)       184         Prevalence Index = B/A =       2.11         Hydrophytic Vegetation Indicators:       1 - Rapid Test for Hydrophytic Vegetation							
Prevalence Index = B/A =11         Hydrophytic Vegetation Indicators:					· · · · · · · · · · · · · · · · · · ·		
Hydrophytic Vegetation Indicators:							
							—
						c vegetation	
=Total Cover       4 - Morphological Adaptations <sup>1</sup> (Provide suppor data in Remarks or on a separate sheet)         ratum       (Plot size: 5')       9         rpus cyperinus       30       Yes       FACW         nraxon hispidus       10       No       FAC         aria pumila       5       No       FAC         tropogon virginicus       5       No       FACU         rex lurida       15       No       OBL         res effusus       20       Yes       FACW         idago gigantea       2       No       FACW         More and greater than or equal to 3.28 ft m) tall.       The p- All herbaceous (non-woody) plants, regardles							
50% of total cover:       20% of total cover:       data in Remarks or on a separate sheet)         ratum (Plot size:       5' )       )         rpus cyperinus       30       Yes       FACW         indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.       10       No         forpogon virginicus       5       No       FAC         thropogon virginicus       5       No       FACU         rex lurida       15       No       OBL         rex lurida       20       Yes       FACW         idago gigantea       2       No       FACW         idago gigantea       2       No       FACW         undago gigantea       2       No       FACW         Herb – All herbaceous (non-woody) plants, regardles       than 3 in. DBH and greater than or equal to 3.28 ft						1 (Dura di da a a a	
ratum       (Plot size: 5' )         rpus cyperinus       30       Yes       FACW         indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.       10       No         aria pumila       5       No       FAC       Perintions of Four Vegetation Strata:         tropogon virginicus       5       No       FACU       Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.         scus effusus       20       Yes       FACW       Sapling/Shrub – Woody plants, excluding vines, lest than 3 in. DBH and greater than or equal to 3.28 ft m) tall.         Herb – All herbaceous (non-woody) plants, regardless       Herb – All herbaceous (non-woody) plants, regardless					- · · · ·		
arrayon hispidus       30       Yes       FACW <sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.         arrayon hispidus       10       No       FAC       present, unless disturbed or problematic.         arrayon hispidus       5       No       FAC       Definitions of Four Vegetation Strata:         dropogon virginicus       5       No       FACU       Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.         cus effusus       20       Yes       FACW       Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall.         under the second construction of the second consecond constru		20%	or lotal cover.			. ,	
10       No       FAC         aria pumila       5       No       FAC         dropogon virginicus       5       No       FAC         dropogon virginicus       5       No       FAC         trex lurida       15       No       OBL         cus effusus       20       Yes       FACW         idago gigantea       2       No       FACW         Sapling/Shrub       - Woody plants, excluding vines, excluding vines, lex         model		30	Vee				,
aria pumila       5       No       FAC         dropogon virginicus       5       No       FACU         trex lurida       15       No       OBL         ncus effusus       20       Yes       FACW         idago gigantea       2       No       FACW         Sapling/Shrub – Woody plants, excluding vines, sin. (7.6 cm         more in diameter at breast height (DBH), regardless         height.         Sapling/Shrub – Woody plants, excluding vines, les         more in diameter at breast height (DBH), regardless         height.         Sapling/Shrub – Woody plants, excluding vines, les         more in diameter at breast height (DBH), regardless         height.         Sapling/Shrub – Woody plants, excluding vines, les         than 3 in. DBH and greater than or equal to 3.28 ft         m) tall.         Herb – All herbaceous (non-woody) plants, regardles						, ,,	must
dropogon virginicus       5       No       FACU       Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardless height.         vicus effusus       20       Yes       FACW       height.         vidago gigantea       2       No       FACW       Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft m) tall.         Herb – All herbaceous (non-woody) plants, regardless	· · · · · · · · · · · · · · · · · · ·				· · · · ·		
Image: Processing of the second of the se							
Incus effusus       20       Yes       FACW       height.         idago gigantea       2       No       FACW       Sapling/Shrub – Woody plants, excluding vines, letter than 3 in. DBH and greater than or equal to 3.28 ft m) tall.         Image: the system of the syst							
Cost enusion       20       Yes       FACW       Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall.         Image: transmission of the second					-	(DDH), Tegaru	lless
Sapingroin ub – woody plants, excluding whes, lead       than 3 in. DBH and greater than or equal to 3.28 ft m) tall.       Herb – All herbaceous (non-woody) plants, regardle							
m) tall. Herb – All herbaceous (non-woody) plants, regardle	Solidago gigantea	2	No	FACW		0	
Herb – All herbaceous (non-woody) plants, regardle						r equal to 3.20	5π
					,		
							ardle
						eater than 3.2	.8 ft ii
50% of total cover: 44 20% of total cover: 18 The grad		44 20%	of total cover:	18	neight.		
87     = Total Cover     Woody Vine – All woody vines greater that height.       50% of total cover:     44     20% of total cover:     18	1150% of total cover:			18	Woody Vine – All woody vines gr		
	oody Vine Stratum (Plot size:	)					
Vine Stratum       (Plot size:)			=Total Cover		Hydrophytic		
Vine Stratum       (Plot size:)	E00/ of total occurr					No	
Vine Stratum (Plot size:)	50% of total cover:	20%	or total cover:		Present? Yes X	No	

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Sampling Point: w015
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Depth	Matrix			x Featur						
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	e	Rema	arks
0-12	10YR 5/1	85	10YR 5/8	12	С	PL/M	Loamy/Cla	ayey	sandy loam	
						·				
Гуре: C=Co I <b>ydric Soil I</b>	ncentration, D=Deple	etion, RM=	· · ·					Indicators		ic Hydric Soils
Histosol	(A1)		Polyvalue Be	elow Sur	face (S8)	(MLRA 1	47, 148)	2 cm M	luck (A10) <b>(ML</b>	RA 147)
Histic Ep	ipedon (A2)		Thin Dark Su	urface (S	9) <b>(MLR</b>	A 147, 148	3)	Coast F	Prairie Redox (A	A16)
Black His	stic (A3)		Loamy Muck	xy Minera	al (F1) <b>(M</b>	LRA 136)		(MLR	RA 147, 148)	
Hydroger	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)			Piedmo	ont Floodplain S	Soils (F19)
Stratified	Layers (A5)		X Depleted Ma	trix (F3)				(MLR	RA 136, 147)	
2 cm Mu	ck (A10) <b>(LRR N)</b>		Redox Dark	Surface	(F6)			Red Pa	rent Material (I	F21)
Depleted	Below Dark Surface	(A11)	Depleted Da	rk Surfa	ce (F7)			(outs	ide MLRA 127	', 147, 148)
Thick Da	rk Surface (A12)		Redox Depre	essions (	(F8)			Very Sł	hallow Dark Su	rface (F22)
Sandy M	ucky Mineral (S1)		Iron-Mangar	iese Mas	sses (F12	) (LRR N,		Other (	Explain in Rem	arks)
Sandy G	leyed Matrix (S4)		MLRA 136	5)						
Sandy Re	edox (S5)		Umbric Surfa	ace (F13	) (MLRA	122, 136)		<sup>3</sup> Indicators	of hydrophytic	vegetation and
Stripped	Matrix (S6)		Piedmont Flo	oodplain	Soils (F1	9) <b>(MLRA</b>	148)	wetland	l hydrology mu	st be present,
Dark Sur	face (S7)		Red Parent I	Vaterial	(F21) <b>(MI</b>	_RA 127,	147, 148)	unless	disturbed or pr	oblematic.
Restrictive L	ayer (if observed):									
Type:	Gravel									
Depth (in	ches):	12					Hydric So	il Present?	Yes X	No
Remarks:							-			
	<b>f</b>	within 10	inches of the soil su		-1:44					

U.S. Army Co WETLAND DETERMINATION DATA SHEET See ERDC/EL TR-12-9; the pr		ains and Piedr	•	Requirement Cont	0-0024, Exp:11/30/2024 rol Symbol EXEMPT: i-15, paragraph 5-2a)
Project/Site: Lynn Bark Solar Project		City/County	/: Inez / Martin	Sar	mpling Date: <u>08-10-202</u> 4
Applicant/Owner: Lynn Bark Energy Facility, L	LC			State: KY Sar	mpling Point: wet016
Investigator(s): Ralph Schuler, Andrew Jaskowiak		Section, Towns	bin Range:	N/A	
Landform (hillside, terrace, etc.): Flat			ve, convex, none		Slope (%): 2%
Subregion (LRR or MLRA): LRR N	Lat: <u>37.785</u>		Long: -82.5		Datum: NAD83
Soil Map Unit Name: Fiveblock, Fairpoint and Kay	mine 6-30% slopes s	stoney		NWI classification:	None
Are climatic / hydrologic conditions on the site typic			Yes X	No (If no, expla	in in Remarks.)
Are Vegetation N, Soil Y, or Hydrology	N significantly dis	sturbed? Ar	e "Normal Circur	mstances" present?	Yes N No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	N naturally proble	ematic? (If	needed, explain	any answers in Remark	s.)
SUMMARY OF FINDINGS – Attach site	map showing s	ampling poi	int locations	, transects, import	ant features, etc.
Hydrophytic Vegetation Present?YesHydric Soil Present?YesWetland Hydrology Present?YesRemarks:	X         No           X         No           X         No	Is the Sample within a Wet		Yes <u>X</u> No	·
HYDROLOGY Wetland Hydrology Indicators:	neck all that apply)		<u>Se</u>	condary Indicators (mini	
Primary Indicators (minimum of one is required; ch		(D14)		Surface Soil Cracks (B	
	True Aquatic Plants ( Hydrogen Sulfide Od			Sparsely Vegetated Co Drainage Patterns (B10	
	Oxidized Rhizospher		ots (C3)	Moss Trim Lines (B16)	
	Presence of Reduce	-		Dry-Season Water Tab	
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils	(C6)	Crayfish Burrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (	C7)		Saturation Visible on A	erial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	marks)		Stunted or Stressed Pl	ants (D1)
Iron Deposits (B5)				_Geomorphic Position (I	,
Inundation Visible on Aerial Imagery (B7)				Shallow Aquitard (D:	
X Water-Stained Leaves (B9)				Microtopographic Relie	
Aquatic Fauna (B13)				FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes No	V Dopth (inch	oo);			
I		es): es):			
	X Depth (inch		Wetland Hyd	rology Present?	Yes X No
(includes capillary fringe)		, <u> </u>	2		
Describe Recorded Data (stream gauge, monitorir	ng well, aerial photos,	, previous inspe	ctions), if availab	le:	
Remarks:					
Ground was not saturated but it was still moist					

	Absolute	Dominant	Indicator				
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:			
				Number of Dominant Species		<u> </u>	(
				That Are OBL, FACW, or FAC:		2	(A)
				Total Number of Dominant		0	
				Species Across All Strata:		2	(B)
				Percent of Dominant Species	40	00.00/	( • /
·				That Are OBL, FACW, or FAC:	10	0.0%	(A/I
		=Total Cover		Prevalence Index worksheet:	N.A I	tiply by	
				Total % Cover of:OBL species20		tiply by: 20	
50% of total cover:		of total cover:			x1=	140	
apling/Shrub Stratum (Plot size:	_)				x 2 =	-	
				·	x 3 =	30	
				· · · · · · · · · · · · · · · · · · ·	x 4 =	12	
				· · · · · · · · · · · · · · · · · · ·	x 5 = _	0	
				Column Totals: 103 (A	· -	202	(
				Prevalence Index = B/	-	1.96	_
				Hydrophytic Vegetation Indica			
				1 - Rapid Test for Hydrophy	-	etation	
				X 2 - Dominance Test is >50%			
				X 3 - Prevalence Index is ≤3.0			
		=Total Cover		4 - Morphological Adaptation data in Remarks or on a s	•		porti
50% of total cover:	20%	of total cover:		uala III Remarks of on a s	Separate	e sheet)	
						1	
				Problematic Hydrophytic Ve		n <sup>1</sup> (Explai	in)
Juncus effusus	30	Yes	FACW	<sup>1</sup> Indicators of hydric soil and wet	egetation	drology n	
Juncus effusus Carex Iurida	20	Yes No	OBL	<sup>1</sup> Indicators of hydric soil and wet present, unless disturbed or prol	egetatior tland hy blematic	drology n c.	
Juncus effusus Carex Iurida Scirpus cyperinus	20 40	Yes No Yes	OBL FACW	<sup>1</sup> Indicators of hydric soil and wet	egetatior tland hy blematic	drology n c.	
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum	20 40 10	Yes No Yes No	OBL FACW FAC	<sup>1</sup> Indicators of hydric soil and wet present, unless disturbed or prol <b>Definitions of Four Vegetation</b> <b>Tree</b> – Woody plants, excluding	egetatior tland hy blematic <b>Strata:</b> vines, 3	drology n c. 3 in. (7.6	must
Juncus effusus Carex lurida Scirpus cyperinus	20 40	Yes No Yes	OBL FACW	<sup>1</sup> Indicators of hydric soil and wet present, unless disturbed or prol <b>Definitions of Four Vegetation</b> <b>Tree</b> – Woody plants, excluding more in diameter at breast heigh	egetatior tland hy blematic <b>Strata:</b> vines, 3	drology n c. 3 in. (7.6	must
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum	20 40 10	Yes No Yes No	OBL FACW FAC	<sup>1</sup> Indicators of hydric soil and wet present, unless disturbed or prol <b>Definitions of Four Vegetation</b> <b>Tree</b> – Woody plants, excluding more in diameter at breast heigh height.	tland hyd blematic <b>Strata:</b> vines, 3 ht (DBH)	drology n c. 3 in. (7.6 ), regardl	cm) less
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum	20 40 10	Yes No Yes No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants,</li> </ul>	egetatior tland hy blematic <b>Strata:</b> vines, 3 ht (DBH) , excludi	drology n c. 3 in. (7.6 ), regardl	cm) less
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum	20 40 10	Yes No Yes No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than</li> </ul>	egetatior tland hy blematic <b>Strata:</b> vines, 3 ht (DBH) , excludi	drology n c. 3 in. (7.6 ), regardl	cm) less
Juncus effusus Carex lurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10	Yes No Yes No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> </ul>	egetation tland hy <u>y</u> blemation <b>Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n 2. 3 in. (7.6 ), regardl ing vines al to 3.28	cm) less , les
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata ).	20 40 10	Yes No Yes No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood)</li> </ul>	egetation tland hy blematic <b>strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n 2. 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regai	cm) less , less ft
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3	Yes No No No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li><b>Definitions of Four Vegetation</b></li> <li><b>Tree</b> – Woody plants, excluding more in diameter at breast heigh height.</li> <li><b>Sapling/Shrub</b> – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li><b>Herb</b> – All herbaceous (non-wood of size, and woody plants less the structure of the structure of</li></ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft rdles
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft rdles
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li><b>Definitions of Four Vegetation</b></li> <li><b>Tree</b> – Woody plants, excluding more in diameter at breast heigh height.</li> <li><b>Sapling/Shrub</b> – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li><b>Herb</b> – All herbaceous (non-wood of size, and woody plants less the structure of the structure of</li></ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft rdles
Juncus effusus Carex Iurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft
Juncus effusus         Carex lurida         Scirpus cyperinus         Dichanthelium clandestinum         Lespedeza cuneata            50% of total cover:         50% of total cover:            Sody Vine Stratum         (Plot size:         )	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft
Juncus effusus         Carex lurida         Scirpus cyperinus         Dichanthelium clandestinum         Lespedeza cuneata         .         .         50% of total cover:         .	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft
Juncus effusus Carex lurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft
Juncus effusus Carex lurida Scirpus cyperinus Dichanthelium clandestinum Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft
Juncus effusus         Carex lurida         Scirpus cyperinus         Dichanthelium clandestinum         Lespedeza cuneata            50% of total cover:         50% of total cover:            Sody Vine Stratum         (Plot size:         )	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li><b>Definitions of Four Vegetation</b></li> <li><b>Tree</b> – Woody plants, excluding more in diameter at breast heigh height.</li> <li><b>Sapling/Shrub</b> – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li><b>Herb</b> – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines of height.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less ft rdles
Juncus effusus         Carex lurida         Scirpus cyperinus         Dichanthelium clandestinum         Lespedeza cuneata	20 40 10 3 	Yes No No No	OBL FACW FAC FACU	<ul> <li><sup>1</sup>Indicators of hydric soil and wet present, unless disturbed or prol</li> <li>Definitions of Four Vegetation</li> <li>Tree – Woody plants, excluding more in diameter at breast heigh height.</li> <li>Sapling/Shrub – Woody plants, than 3 in. DBH and greater than m) tall.</li> <li>Herb – All herbaceous (non-wood of size, and woody plants less the Woody Vine – All woody vines greater than the second vine of size.</li> </ul>	egetation tland hy <u>blematic</u> <b>a Strata:</b> vines, 3 ht (DBH) , excludi or equa	drology n <u>2.</u> 3 in. (7.6 ), regardl ing vines al to 3.28 nts, regard b ft tall.	cm) less o , less ft rdles

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Sampling Point: wet016
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Jonth								ce of indica		
Depth inches)	Matrix Color (moist)	%	Color (moist)	x Featur %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Rem	arks
0-10	10YR 5/1	60	10YR 5/8	40	RM	PL/M	Loamy/Clay		sandy loarr	1
		·				·				
	ncentration, D=Deple		Reduced Matrix M			Grains	<sup>2</sup> l c		Pore Lining, M	I=Mətrix
vdric Soil Ir	· · · ·		Reduced Matrix, M	0-Mask	eu Ganu	oranis.				tic Hydric Soils
Histosol (			Polyvalue B	elow Sur	face (S8)	(MLRA 1	47, 148)		luck (A10) <b>(MI</b>	5
	pedon (A2)		Thin Dark S						Prairie Redox	-
Black His	,		Loamy Much	`	<i>,</i> .				RA 147, 148)	
	Sulfide (A4)		Loamy Gley		. , .			•	ont Floodplain	Soils (F19)
, ,	Layers (A5)		X Depleted Ma		( )				RA 136, 147)	
	k (A10) <b>(LRR N)</b>		 Redox Dark	. ,	(F6)			•	arent Material	(F21)
_	Below Dark Surface	(A11)	Depleted Da		. ,				side MLRA 12	. ,
	k Surface (A12)	()	Redox Depr		( )			``	hallow Dark Si	,
	ucky Mineral (S1)		Iron-Mangar		,				Explain in Rer	,
- 1	eyed Matrix (S4)		MLRA 13		5565 (1 12		,			nantoj
Sandy Re			Umbric Surfa			122 136)		<sup>3</sup> Indicators	of hydrophytic	vegetation and
- 1	Matrix (S6)		Piedmont Fl	•	, <b>.</b>	. ,			, , ,	ust be present,
Dark Surf	( )		Red Parent	•	`	<i>,</i> <b>,</b>	,		disturbed or p	
_	ayer (if observed):			Material	(121) (111	-104 127,	147, 140)	dilless		
	ayer (il observeu).									
Type: Depth (ind	aboa):	10					Hydric Soil	Brocont2	Yes X	No
		10					Hyune Son	Flesent		
	of a depleted matrix conditions of satura 10".						,	,		

U.S. Arm WETLAND DETERMINATION DATA See ERDC/EL TR-12-9;		•	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Solar Project Applicant/Owner: Lynn Bark Energy Fa Investigator(s): Ralph Schuler, Andrew Jash Landform (hillside, terrace, etc.): Flat	kowiak S	City/County: <u>Inez / Martin</u> Section, Township, Range: al relief (concave, convex, none	
Subregion (LRR or MLRA): LRR N	Lat: <u>37.7873</u>	~	38181 Datum: NAD83 NWI classification: None
Soil Map Unit Name: Fiveblock, Fairpoint a Are climatic / hydrologic conditions on the si Are Vegetation N, Soil Y, or Hydr Are Vegetation N, Soil N, or Hydr SUMMARY OF FINDINGS – Attac	te typical for this time of year rology <u>N</u> significantly dist rology <u>N</u> naturally probler	? Yes X I urbed? Are "Normal Circun matic? (If needed, explain	No (If no, explain in Remarks.)
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes         X         No           Yes         X         No           Yes         X         No	Is the Sampled Area within a Wetland?	Yes X No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is requ	ired; check all that apply)	Sec	condary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (E Hydrogen Sulfide Odo	or (C1)	Surface Son Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	X Oxidized Rhizospheres X Presence of Reduced Recent Iron Reduction Thin Muck Surface (C Other (Explain in Rem	Iron (C4) n in Tilled Soils (C6) 7)	Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B Water-Stained Leaves (B9) Aquatic Fauna (B13)			Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)	No X Depth (inches No X Depth (inches No X Depth (inches	s):	ology Present? Yes X No
Describe Recorded Data (stream gauge, m Remarks:	onitoring well, aerial photos, p	previous inspections), if availabl	e:

	Absolute	Dominant	Indicator		
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:	
				Number of Dominant Species	A ()
				That Are OBL, FACW, or FAC:	4 (4
				Total Number of Dominant Species Across All Strata:	6 /5
				Species Across All Strata.	<u>    6     (</u> E
				Percent of Dominant Species That Are OBL, FACW, or FAC:	66.7% (A
				Prevalence Index worksheet:	00.770 (7
		=Total Cover			Multiply by:
50% of total cover:		of total cover:		OBL species 0 x1=	.,,,
pling/Shrub Stratum (Plot size: 15'	) 2070			FACW species 35 x 2 =	
Elaeagnus umbellata	2	No	UPL	FAC species 10 x 3 =	
Liacaginus umbenata	2	110		FACU species 20 x 4 =	
				UPL species $12 \times 5 =$	
				Column Totals: 77 (A)	240
				Prevalence Index = $B/A =$	3.12
				Hydrophytic Vegetation Indicators	
				1 - Rapid Test for Hydrophytic V	
				X 2 - Dominance Test is >50%	egetation
				$\frac{1}{2}$ - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
	2	=Total Cover		4 - Morphological Adaptations <sup>1</sup>	Provide suppor
50% of total cover:		of total cover:	1	data in Remarks or on a sepa	
	1 2070			Problematic Hydrophytic Vegeta	,
erb Stratum (Plot size: 5') Daucus carota	10	Yes	UPL		
	10			<sup>1</sup> Indicators of hydric soil and wetland	, ,,
Lespedeza cuneata	15	Yes	FACU FACW	present, unless disturbed or problem	
Scirpus cyperinus		Yes		Definitions of Four Vegetation Stra	
Solidago gigantea	10	Yes	FACW	Tree – Woody plants, excluding vine more in diameter at breast height (D	
Juncus effusus	10		FACW	height.	Dill, regardles.
Arthraxon hispidus	<u>10</u> 5	Yes	FAC		
Lotus corniculatus	5	No	FACU	Sapling/Shrub – Woody plants, exc than 3 in. DBH and greater than or e	•
				m) tall.	qual 10 5.20 II
				<b>Herb</b> – All herbaceous (non-woody) of size, and woody plants less than 3	
		=Total Cover	45	Woody Vine – All woody vines great height.	er than 3.28 ft
50% of total cover:	38 20%	of total cover:	15		
oody Vine Stratum (Plot size:	)				
				Hydrophytic	
		=Total Cover		Vegetation	
50% of total cover:	20%	of total cover:		Present? Yes X N	0

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Sampling Point: w018
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		-				or or con	firm the absence of	indicators.)
Depth	Matrix			x Featur		. 2	<b>-</b> .	<b>D</b>
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 4/2	70	10YR 5/1	20	RM	М	Loamy/Clayey	Channery sandy loam
				10	DM			
		· ·	10YR 7/6	10	RM	PL		
		· ·						
		· ·						
Туре: С=Сс	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Maske	ed Sand	Grains.	<sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
lydric Soil I	Indicators:						Indi	cators for Problematic Hydric Soils
Histosol	(A1)		Polyvalue B	elow Surf	ace (S8)	(MLRA <sup>·</sup>	147, 148)	2 cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	oipedon (A2)		Thin Dark S	urface (S	9) <b>(MLR</b> /	A 147, 14	.8)	Coast Prairie Redox (A16)
Black His	stic (A3)		Loamy Much	ky Minera	l (F1) <b>(M</b>	LRA 136	)	(MLRA 147, 148)
Hydroger	n Sulfide (A4)		Loamy Gley	ed Matrix	: (F2)			Piedmont Floodplain Soils (F19)
	l Layers (A5)		X Depleted Ma	• • •				(MLRA 136, 147)
	ıck (A10) <b>(LRR N)</b>		Redox Dark		` '			Red Parent Material (F21)
	d Below Dark Surface	e (A11)	Depleted Da					(outside MLRA 127, 147, 148)
	ark Surface (A12)		Redox Depr	`	,			Very Shallow Dark Surface (F22)
	lucky Mineral (S1)		Iron-Mangar		ses (F12	) (LRR N	,	Other (Explain in Remarks)
	Bleyed Matrix (S4)		MLRA 13			400 400	3	
	ledox (S5)		Umbric Surfa					icators of hydrophytic vegetation and
	Matrix (S6)		Piedmont Fl	·		<i>,</i> .	-	wetland hydrology must be present,
	rface (S7)		Red Parent	Material	(FZI) (IVI	_KA 127,	147, 140)	unless disturbed or problematic.
	Layer (if observed):							
Туре:								
Depth (in	nches):	12					Hydric Soil Pres	ent? Yes X No
Remarks: The presence								

U.S. Army Corps of Engineer WETLAND DETERMINATION DATA SHEET – Eastern Mount See ERDC/EL TR-12-9; the proponent agency	ains and Piedmont Region	OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: Lynn Bark Solar Project	City/County: Inez / Martin	Sampling Date: 08-09-2024
Applicant/Owner: Lynn Bark Energy Facility, LLC		State: KY Sampling Point: <u>Wet020</u>
Investigator(s): Ralph Schuler, Andrew Jaskowiak	Section, Township, Range:	
Landform (hillside, terrace, etc.): floodplain	ocal relief (concave, convex, none	e): Concave Slope (%): 3%
Subregion (LRR or MLRA): LRR N Lat: 37.785		·
Soil Map Unit Name: Handshoe-Fedscreek-Shelocta 30-80% slope, vo	°	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year		No (If no, explain in Remarks.)
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly d		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally prob	lematic? (If needed, explain	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     X     No       Hydric Soil Present?     Yes     X     No       Wetland Hydrology Present?     Yes     X     No	Is the Sampled Area within a Wetland?	Yes_X_ No
Remarks:		
HYDROLOGY Wetland Hydrology Indicators:	Sec	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil Cracks (B6)
X Surface Water (A1) True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
X High Water Table (A2) Hydrogen Sulfide O	dor (C1)	Drainage Patterns (B10)
	res on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) X Presence of Reduce		Dry-Season Water Table (C2)
		Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface ( Algal Mat or Crust (B4) Other (Explain in Re		Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)	_X	FAC-Neutral Test (D5)
Field Observations:		
	nes): <u>3</u>	
	nes): 7	rology Present? Yes X No
Saturation Present? Yes X No Depth (incl (includes capillary fringe)		rology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos	previous inspections) if availabl	e.
	, p.e	
Remarks:		

	Absolute	Dominant	Indicator	
ree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:
				Number of Dominant Species
				That Are OBL, FACW, or FAC: (A
				Total Number of Dominant
				Species Across All Strata:4 (B
				Percent of Dominant Species
				That Are OBL, FACW, or FAC:00.0% (A
				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
50% of total cover:		of total cover:		OBL species <u>50</u> x 1 = <u>50</u>
apling/Shrub Stratum (Plot size:	_)			FACW species 40 x 2 = 80
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column Totals: 90 (A) 130
				Prevalence Index = B/A = 1.44
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				X 2 - Dominance Test is >50%
				X_3 - Prevalence Index is ≤3.0 <sup>1</sup>
	:	=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide support
50% of total cover:	20%	of total cover:		data in Remarks or on a separate sheet)
erb Stratum (Plot size: 5 )				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Typha latifolia	5	No	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Impatiens capensis	20	Yes	FACW	present, unless disturbed or problematic.
Juncus effusus	15	Yes	FACW	Definitions of Four Vegetation Strata:
Solidago gigantea	5	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm
Schoenoplectus tabernaemontani	15	Yes	OBL	more in diameter at breast height (DBH), regardless
Carex Iupulina	20	Yes	OBL	height.
Carex vulpinoidea	5	No	OBL	Sapling/Shrub – Woody plants, excluding vines, les
Carex frankii	5	No	OBL	than 3 in. DBH and greater than or equal to 3.28 ft
				m) tall.
				Herb – All herbaceous (non-woody) plants, regardle
				of size, and woody plants less than 3.28 ft tall.
·	90 :	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft i
50% of total cover			18	height.
50% of total cover:	<u>40</u> 20%	of total cover:	18	
oody Vine Stratum (Plot size:)				
				Hydrophytic
		=Total Cover		Hydrophytic Vegetation

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Sampling Point: Wet020
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Color (moist)         %         Color (moist)         %         Type1         Loc2         Texture         Remarks           0-4         10YR 4/2         50         10YR 4/6         40         RM         PL/M         Loamy/Clayey         sandy loam           4-16         10YR 5/1         90         10YR 5/8         10         RM         PL/M         Loamy/Clayey         sandy loam           4-16         10YR 5/1         90         10YR 5/8         10         RM         PL/M         Loamy/Clayey         sandy loam           grip         2         10YR 5/8         10         RM         PL/M         Loamy/Clayey         sandy loam           grip         90         10YR 5/8         10         RM         PL/M         Loamy/Clayey         sandy loam           grip         2         Caction:         PL=Pore Lining, M=Matrix.         Indicators         Indicators for Problematic Hydric Soi           Histos (A1)         Polyvalue Below Surface (S9) (MLRA 147, 148)         2 cm Muck (A10) (MLRA 147)         Indicators for Problematic Hydric Soi           Hydrogen Sulfide (A4)         Loamy Glayed Matrix (F2)         Thin Dark Surface (S9) (MLRA 147, 148)         Coast Prairie Redox (A16)         (MLRA 147, 148)         Indicators of Problematic Hydric Soi	Donth	Motrix						firm the absence of i	haloators.y
0.4       10YR 4/2       50       10YR 4/6       40       RM       PL/M       Loamy/Clayey       sandy loam         4-16       10YR 5/1       90       10YR 5/8       10       RM       PL/M       Loamy/Clayey       sandy loam         4-16       10YR 5/1       90       10YR 5/8       10       RM       PL/M       Loamy/Clayey       sandy loam         10Ype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Histos (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147, 148)       Coast Prairie Redox (A16)         Stratified Layers (A5)       X       Depleted Matrix (F2)       Pledmont Floodplain Soils (F19)       (MLRA 147, 148)         Stratified Layers (A5)       X       Depleted Dark Surface (F7)       (MLRA 127, 147, 148)       Very Shallow Dark Surface (F22)         Sandy Necky Mineral (S1)       Redx Dark Surface (F13) (MLRA 122, 136)       Sandy Redax (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation ann wetlan hydrology must be present, unless disturbed or problematic.         Sandy Necky Mineral (S1)       Pledmont Floodplain Soils (F19) (MLRA 12	Depth (inches)	Color (moist)	%				$loc^2$	Texture	Remarks
4-16       10YR 5/1       90       10YR 5/8       10       RM       PL/M       Loamy/Clayey       sandy loam         Fype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histosol (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stripted Bolow Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Gleyed Matrix (S4)       MLRA 136)       Very Shallow Dark Surface (F22)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and surface (F31) (MLRA 127, 147, 148)         Dark Surface (S7)       Red Parent Material (F21) (MLRA 147, 148)       unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 147, 148)       unless d	inches)		70		70	туре	LUC	Texture	Remarks
4-16       10YR 5/1       90       10YR 5/8       10       RM       PL/M       Loamy/Clayey       sandy loam         Fype:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soi         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Dark Surface (F7)       (MLRA 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (MLRA 147, 148)       Very Shallow Dark Surface (F22)         Sandy Gleyed Matrix (S4)       MLRA 136)       Very Shallow Dark Surface (F22)       Shidicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 127, 147, 148)       Silaciators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Bark Hirtix (S6)       Pledmont Floodplain Soils (F19) (MLRA 148)       settind hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Red Parent Material	0-4	10YR 4/2	50	10YR 4/6	40	RM	PL/M	Loamy/Clayey	sandy loam
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location:       PL=Pore Lining, M=Matrix.         ydric Soil Indicators:       Indicators for Problematic Hydric Soi         Histosol (A1)       Polyvalue Below Surface (S9) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Bow Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Gleyed Matrix (S4)       MLRA 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Betrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes_X       No_         Type:       Depleted matrix within 12 inches of the soil surface				10YR 2/1	10	С			
ydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Red ox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Eestrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes X       No         marks:       he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that	4-16	10YR 5/1	90	10YR 5/8	10	RM	PL/M	Loamy/Clayey	sandy loam
ydric Soil Indicators:       Indicators:       Indicators for Problematic Hydric Soil         Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Red ox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Eestrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes X       No         marks:       he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that			·		<u></u>				
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Barticitve Layer (if observed):       Type:	Type: C=Cc	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	IS=Mask	ed Sand	Grains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
Histosol (A1)       Polyvalue Below Surface (S8) (MLRA 147, 148)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present, unless disturbed or problematic.         etrictive Layer (if observed):       Type:       Piedmont Floodplain Soils (F19) (MLRA 127, 147, 148)       wetland hydrology must be present, unless disturbed or problematic.         memrks:       he presence of a reduced matrix within			,	,					0
Histic Epipedon (A2)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         estrictive Layer (if observed):       Type:	-			Polyvalue B	elow Sur	face (S8)			•
Black Histic (A3)       Loamy Mucky Mineral (F1) (MLRA 136)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       wetland hydrology must be present,         Unpertice       Image: Type:       Image: Type:       Image: Type:         Depth (inches):       Hydric Soil Present?       Yes X       No         Remarks:       he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that							-		
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)       (outside MLRA 127, 147, 148)         Depleted Below Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         estrictive Layer (if observed):       Type:					-	, -		·	( ),
Stratified Layers (A5)       X       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Stripped Matrix (S6)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:		. ,					ILNA 150		
2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Red Parent Material (F21)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:	, ,	· · ·				` '		F	· · · · · ·
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       (outside MLRA 127, 147, 148)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:								-	
Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (F22)         Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       Other (Explain in Remarks)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:			( )			` '		F	· · · ·
Sandy Mucky Mineral (S1)       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       MLRA 136)       3Indicators of hydrophytic vegetation and         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)       3Indicators of hydrophytic vegetation and         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present,         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:			(A11)	·		. ,			,
Sandy Gleyed Matrix (S4)       MLRA 136)         Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)         testrictive Layer (if observed):       Type:         Depth (inches):       Hydric Soil Present?         Yes       X         temarks:         he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that									• • •
Sandy Redox (S5)       Umbric Surface (F13) (MLRA 122, 136) <sup>3</sup> Indicators of hydrophytic vegetation and Stripped Matrix (S6)         Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:	Sandy M	ucky Mineral (S1)				sses (F12	2) (LRR N	l,C	Other (Explain in Remarks)
Stripped Matrix (S6)       Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present, unless disturbed or problematic.         Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:	Sandy G	leyed Matrix (S4)		MLRA 13	6)				
Dark Surface (S7)       Red Parent Material (F21) (MLRA 127, 147, 148)       unless disturbed or problematic.         testrictive Layer (if observed):       Type:	Sandy Re	edox (S5)		Umbric Surf	ace (F13	) <b>(MLRA</b>	122, 136	) <sup>3</sup> Indic	ators of hydrophytic vegetation and
estrictive Layer (if observed):         Type:         Depth (inches):         Hydric Soil Present?         Yes         X         No         temarks:         he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that	Stripped	Matrix (S6)		Piedmont Fl	oodplain	Soils (F1	9) (MLR/	<b>A 148)</b> v	vetland hydrology must be present,
Type:       Hydric Soil Present?       Yes X       No         Depth (inches):       Hydric Soil Present?       Yes X       No         temarks:       He presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that						(F21) <b>(M</b>	LRA 127.	<b>147, 148)</b> u	place disturbed or problematic
Depth (inches):       Hydric Soil Present?       Yes       X       No         emarks:       he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that	Dark Sur	face (S7)		Red Parent	waterial	(1 - 1) (111	,		iniess disturbed of problematic.
Depth (inches):       Hydric Soil Present?       Yes       X       No         emarks:       he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that		. ,		Red Parent	Material	(121)(11	,		iness disturbed of problematic.
lemarks: he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that	Restrictive L	. ,		Red Parent	Material	(121) (11	,		
he presence of a reduced matrix within 12 inches of the soil surface indicates that this soil is hydric based on the hydric soil definition: "a soil that	Restrictive L Type:	ayer (if observed):		Red Parent	Material	(121)(11			
	Restrictive L Type: Depth (in Remarks:	ayer (if observed):	within 12					Hydric Soil Prese	nt? Yes <u>X</u> No
	Restrictive L Type: Depth (in Remarks: The presence	ayer (if observed):		inches of the soil so	urface ind	dicates th	nat this so	Hydric Soil Prese	nt? Yes X No
	Restrictive L Type: _ Depth (in Remarks: The presence	ayer (if observed):		inches of the soil so	urface ind	dicates th	nat this so	Hydric Soil Prese	nt? Yes X No
	Eestrictive L Type: _ Depth (in Remarks: he presence	ayer (if observed):		inches of the soil so	urface ind	dicates th	nat this so	Hydric Soil Prese	nt? Yes X No
	Restrictive L Type: _ Depth (in Remarks: The presence	ayer (if observed):		inches of the soil so	urface ind	dicates th	nat this so	Hydric Soil Prese	nt? Yes X No