

# **PRECONSTRUCTION NOTIFICATION**

## **SURFACE COAL MINE OPERATION In Ohio County, Kentucky**

### **P. RIDGE SOUTH PIT MINE Amendment No. 1 Site**

Prepared for:

**Western Kentucky Minerals**

6133 US Hwy 60 East  
Owensboro, KY 42303

Prepared by:



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# STANDARD OPERATING PROCEDURES

## **1. Pre-Application Meeting.**

An on-site meeting with a representative from the United States Army Corps of Engineers (USACE) will be conducted, but has not been scheduled.

## **2. Receipt of Application.**

Please refer to ENG Form 4345 and attachments for information related to applicant, authorized agent, project location, project description and purpose, adjoining property owners, summary of impacts and signature authorization. See Vicinity Map for the project location.

### **A. Detailed description of proposed activity:**

#### **(1) Impacts**

Under this application, Western Kentucky Minerals is proposing the following impacts: 5149 linear feet of ephemeral stream (or 0.436 surface acres), and 3252 linear feet of intermittent stream (or 0.428 surface acres). There will be 4 jurisdictional wetlands filled with a total area of 0.769 acres (0.441 acres of palustrine forested (PFO) wetlands, and 0.358 acres of palustrine emergent (PEM) wetlands). There were two ponds (with fringe wetlands) to be drained and filled, totaling 1.011 acres.

##### **(a) Direct Impacts**

- The proposed activity will not involve permanent fills.
- One new temporary basin will be utilized for sediment control, sited such that no stream impacts are expected.
- Mining will affect 3252 feet of intermittent stream, and 5149 feet of ephemeral stream (totaling 8401 feet), 0.769 acres of wetlands, and 1.011 acres of open waters. All impacts are required to access the coal reserves. Upon completion of mining, the area will be reclaimed and drainage re-established. Mitigation for stream impacts will be accomplished on-site using natural channel design techniques. Wetland mitigation is also proposed on-site and open waters will be re-established by development of three ponds during the reclamation phase.

##### **(b) Indirect Impacts**

- Water will be diverted within the project boundary. No diversions outside of the project boundary will be needed during the mining process.

- Site excavation will result in impacts to streams and wetlands and will indirectly impact aquatic life movement by creating temporary obstacles.

## **(2) Drainage Acreage**

The total area within the project boundary is 114.3 acres, which is located within the Barnett Creek watershed (within twelve-digit HUC 051100040506). There are two general watershed locations where existing drainage leaves the project site. Drainage areas for these watersheds are 179 acres, and 46 acres (I-1, and I-2 respectively). Refer to the baseline "Table 1 - Summary of Stream Information" for drainage areas of each impact.

## **(3) Purpose**

To expand an existing permitted surface mining area, the purpose of the proposed activity is to establish a surface coal mine operation to extract coal from two Unnamed Coal Seams in the Caseyville and Tradewater Formation, in order to meet future energy demands of the United States. The operation is expected to last approximately 36 months. This project will provide jobs for fifteen employees at the site, ten continued and five new jobs, as well as a large number of indirect jobs supporting the facility. Business activities associated with the project are expected to boost local economy in a region that has suffered economically since the 1970's.

## **(4) Schedule**

Work is expected to begin in early 2014, with expected completion in 2017.

## **(5) Dredged or Fill Material**

Material consisting of native rock and soil will be generated during project development. Streams, wetlands, and ponds will be impacted by excavation during the mining process. The volume of streams, to ordinary high water mark, is approximately 1000 cubic yards. The volume of wetlands is approximately 4,300 cubic yards, and ponds approximately 6,500 cubic yards.

## **B. Minimal Impact Determination**

### **(1) Loss of Aquatic Functions**

Loss of aquatic functions: The primary functions of streams within the project boundary are aquatic habitat and movement, water conveyance, sediment transport and a potential water source for terrestrial animals. In addition, smaller ephemeral streams and headwaters of the

larger streams supply organic material to lower reaches and eventually to larger stream systems. Although most of the streams at the P. Ridge South Pit Mine Site lies within forested areas, there have been some impacts to streams from private road construction (E-6 and E-7) and utility construction (upper reaches of I-1, E-1, and E-4). Only a few streams had a substrate that was not predominantly silt/clay material, and they typically had a mix of silt/clay and sand sizes. Most of the streams had indications of some substrate instability due to the deposition of new fines found within their channels. The only significant pool areas found were associated with the largest stream (I-1). All of these factors lead to conditions where habitat availability is less than desirable. The RBP scores for streams at the project site were generally in the marginal range, the exceptions being the upper reach of E-5, and E-8 (they are suboptimal). Most all of the scores were aided by the presence of wide riparian zones; as expected in a forested situation. The primary functions of wetlands within the project boundary include: flood water storage, energy dissipation, nutrient retention, subsurface water storage and wildlife habitat. The four wetlands found were all relatively small with total areas nearly equal in forested or emergent wetlands. The emergent are associated with ponds, while the forest wetland areas are associated with streams.

Stream and wetland functions will be temporarily lost during project development. Although stream mitigation is being proposed on-site, reclamation of the site will provide additional drainage channels that should develop, over time, to provide further gains in stream functions. A discussion of the proposed stream and wetland mitigation is provided in the mitigation section of the application.

## **(2) Gain of Aquatic Functions**

Aquatic stream functions will be gained through the proposed compensatory mitigation. The streams have been designed to promote aquatic diversity by providing a more variable habitat through the use of in-stream structures such as J-hooks and vanes. Aquatic habitat will be enhanced by installing overhanging and submerged log structures and root wads. The proposed riparian zone will provide the shading and nutrient load presently lacking or reduced along some stream reaches. Through utilization of natural channel design techniques, these streams should be more stable and more efficient in the transport of sediments. Wetland functions will be compensated for on-site by creation of a palustrine forested wetland, accounting for both forested and emergent wetland impacts. The created wetland is expected to be of overall higher quality and value than the wetlands to be replaced. The impact to two small open

waters (ponds) will be compensated by the development of three permanent ponds during the reclamation phase of the project. They will provide, at a minimum, the acreage of open waters being impacted.

Briefly stated, aquatic functions for streams gained with compensatory mitigation include:

- Replacing streams on-site at approved mitigation ratios.
- Establishing wide riparian zones, using desirable native tree and shrub species.
- Utilizing in-stream structures such as J-hooks and vanes to create variable habitat.
- Creating stable stream systems based on natural channel design techniques and geomorphic principles.
- Wetland impacts will be mitigated on site by establishing wetlands of higher overall quality.
- Open waters will be re-established by development of permanent ponds.
- Providing permanent protection through a protective covenant.

### **(3) Avoidance and Minimization**

The project has been designed to avoid and minimize adverse impacts to waters of the U.S.

(a) Geologic exploration in the region indicates that the proposed surface mine area is the most appropriate based on the amount of coal reserves available and the inadequate overburden cover to recover the seams by other mining techniques; including underground mining.

(b) The project will involve surface mining an area that has already had some impacts from agricultural practices and residential/farm development. Some forested areas have already been cleared for power transmission line corridors. The original footprint for the proposed mine was reduced in the area of the existing transmission corridor, which reduced potential impacts to streams. The only alternative that would result in no impacts to waters of the U.S. is the no-build alternative, which would not meet the purpose and need of the proposed project. Completely avoiding impacts to all streams and wetlands within the project boundary was determined not to be practical.

Erosion control measures during project development will be employed to minimize the increase of suspended solids and turbidity. Erosion control structures will include a silt basin located as close to impact areas as practicable, diversion ditches, rock check dams, temporary seeding and mulching and silt fence. Additional measures include timely construction and maintenance of sediment control structures combined with concurrent reclamation and re-vegetation of disturbed areas.

(c) No information has been found that lists any of the aquatic sites as high quality waters. For example, there are no Outstanding Resource Waters, Division of Water Reference Reaches, Class 1-3 Undeveloped or Wild and Scenic Rivers or Cold Water Habitat located within the project boundary.

(d) One new basin will be utilized for sediment control. It will be located near the project limits and will serve to treat water before it leaves the site. The basin will be used as temporary sediment control; to be removed, and the area restored to existing conditions after project completion.

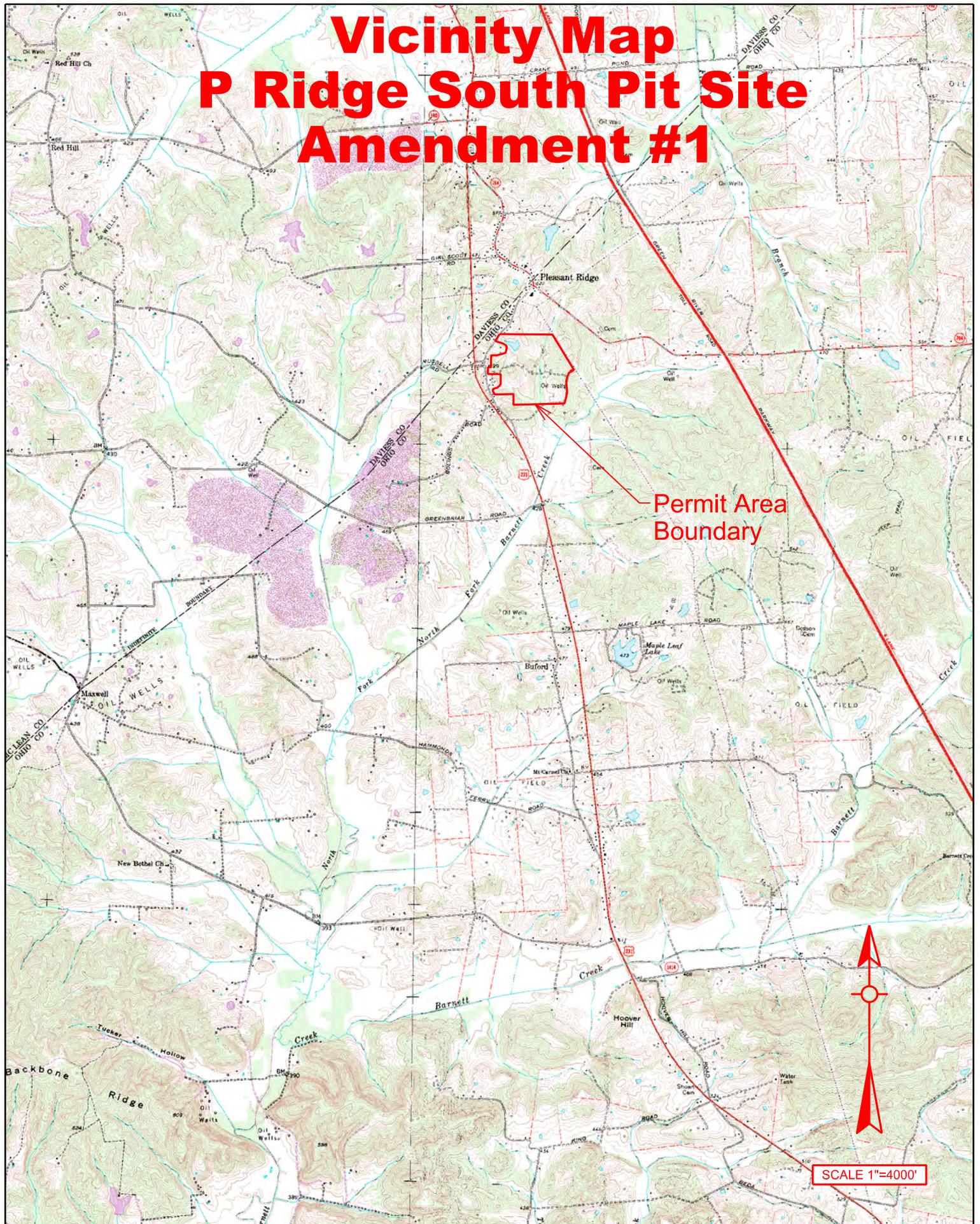
**(4) Cumulative Impacts Analysis:**

Refer to the Cumulative Impact Analysis section of the application.

**C. Compensatory Mitigation:**

Refer to the Stream and Wetland Mitigation Plan section of the application.

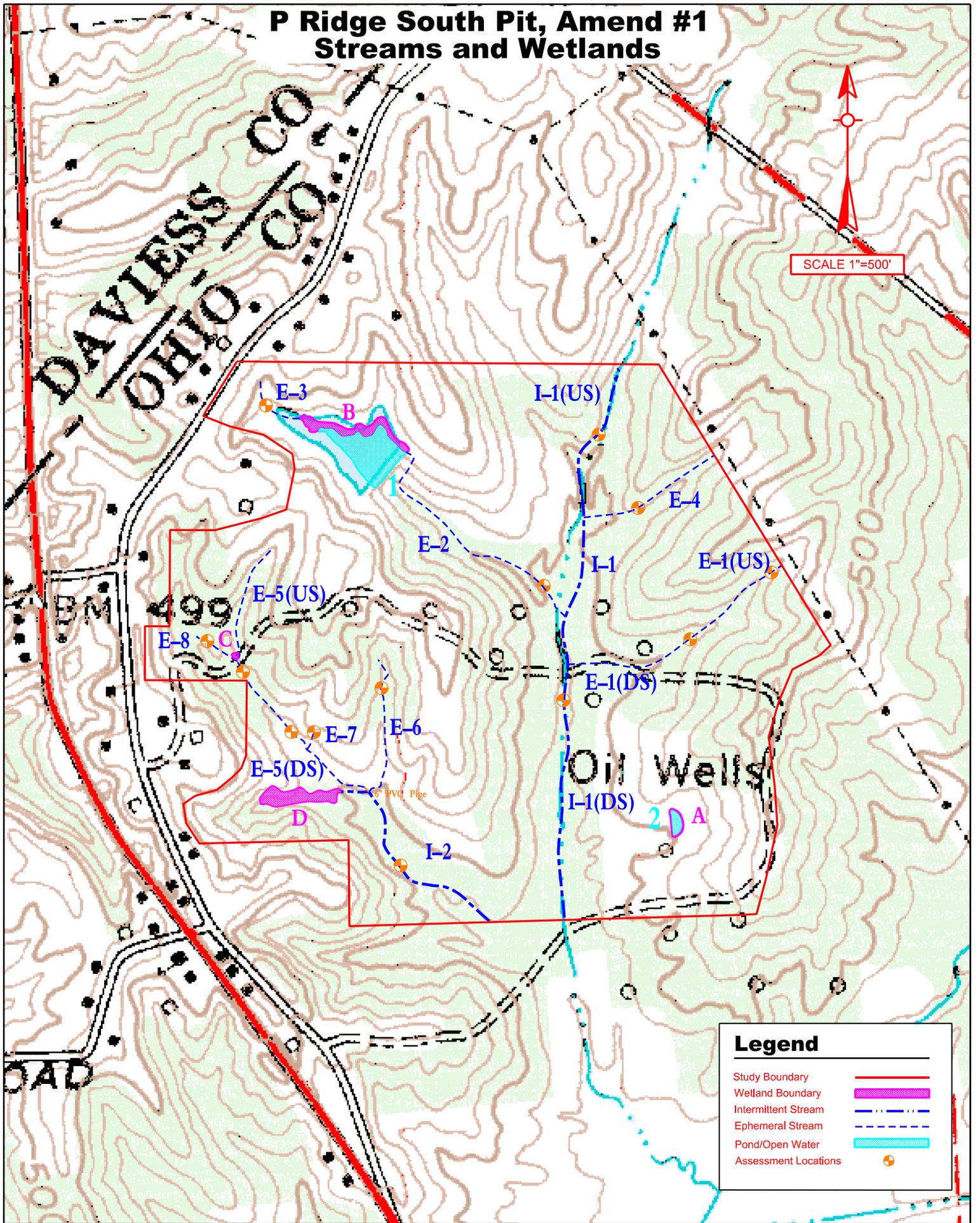
# Vicinity Map P Ridge South Pit Site Amendment #1



T.H.E. Engineers, Inc.	PROJECT: P RIDGE SOUTH PIT, AMEND. #1 SITE - PERMIT BOUNDARY	STREAMS: UT's OF NORTH FORK BARNETT CREEK		
	COUNTY: OHIO	STATE: KY	NEAR: PLEASANT RIDGE	ITEM: VICINITY MAP
				EXHIBIT 1

DATE:

# P Ridge South Pit, Amend #1 Streams and Wetlands



SCALE 1"=500'

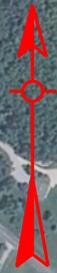
**Legend**

- Study Boundary ———
- Wetland Boundary ———
- Intermittent Stream - - - - -
- Ephemeral Stream - - - - -
- Pond/Open Water ▭
- Assessment Locations ⊕

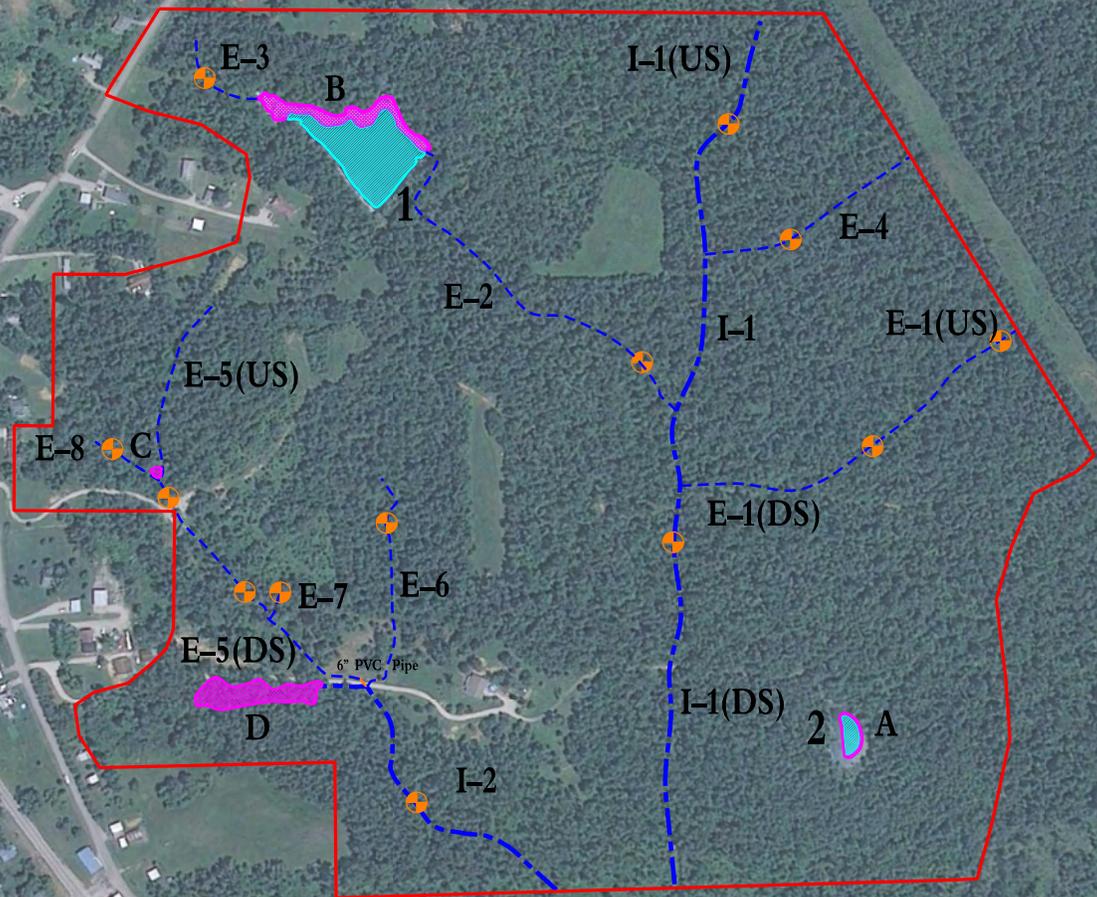
T.H.E. Engineers, Inc.	PROJECT: P RIDGE SOUTH PIT, AMEND. #1 SITE - JURISDICTIONAL WATERS DELINEATION	STREAM: UT'S OF NORTH FORK BARNETT CREEK	
	COUNTY: OHIO	STATE: KY	NEAR: PLEASANT RIDGE
		ITEM: QUAD MAP	EXHIBIT 2

DATE:

# P Ridge South Pit, Amend. #1 Streams and Wetlands



SCALE 1"=500'



**Legend**

- Study Boundary ———
- Wetland Boundary ▨
- Intermittent Stream - - - - -
- Ephemeral Stream . . . . .
- Pond/Open Water ▨
- Assessment Locations ⊕

<b>T.H.E. Engineers, Inc.</b>	PROJECT: P RIDGE SOUTH PIT, AMEND. #1 SITE - JURISDICTIONAL WATERS DELINEATION		STREAM: UT'S OF NORTH FORK BARNETT CREEK		
	COUNTY: OHIO	STATE: KY	NEAR: PLEASANT RIDGE	ITEM: AERIAL MAP	EXHIBIT 3

DATE: