



**A Phase I Cultural Resource Assessment  
For A Proposed Dragline Route In  
Tuscaloosa and Jefferson Counties, Alabama**



**Prepared For:**

Shannon, LLC  
P.O. Box 621  
Jasper, Al 35502

**Prepared By:**

PELA GeoEnvironmental  
P.O. Box 12  
Lauderdale, MS 39335

September 12, 2011

A handwritten signature in black ink that reads "Terry Lolley".

---

Terry L. Lolley, M.A., R.P.A.  
Principal Investigator



---

## INTRODUCTION

In August 2011, PELA GeoEnvironmental, Inc. (PELA) conducted a Phase I cultural resource survey for Shannon, LLC through Drummond Co., Inc. The survey was completed along a proposed dragline route in eastern Tuscaloosa and western Jefferson Counties, Alabama through Drummond Co., Inc. The purpose of this investigation was to locate and document any prehistoric or historic archaeological resources present, and to obtain sufficient data about those resources to allow PELA to make any recommendations for avoidance or mitigation of adverse impacts to any sites from the proposed activities.

The project area (Figures 1 through 4) is comprised of an approximately 300 foot wide corridor that is approximately 98,500 feet in length. The proposed dragline route will traverse existing roads and areas previously disturbed whenever possible. The survey was conducted in Sections 3, 4, 7, 8, 9, 10, 17, and 18 of Township 20 South, Range 6 West, Sections 13, 23, and 24 of Township 20 South, Range 7 West on the Abernant (USGS 1980) quadrangle; Sections 21, 22, 31, and 32 of Township 20 South, Range 7 West, Sections 25, 26, 27, 33, 34, 35, and 36 of Township 20 South, Range 8 West on the Brookwood (USGS 1983) quadrangle; and Sections 3 and 4 of Township 21 South, Range 8 West on the Coaling (USGS 1978) quadrangle. Graphics documenting the present state of the area with regard to terrain, general flora, and previous land-use are provided within this report (Figures 5 through 20).

Terry Lolley served as Principal Investigator for this project and was assisted in the field by Jimmy Mawk and Curt Spikes. The fieldwork was conducted over eight days on August 1, 2 and 4, 8 through 10, and 29 through 30, 2011.

## LITERATURE AND DOCUMENT SEARCH

Prior to the fieldwork, a background literature review was performed. Neither the National Register of Historic Places (NRHP) nor the Alabama Tapestry lists any historic properties within the project area. The 1932 (USGS) Yolande and 1934 (USGS) Searles 15 minute topographic quadrangles show structures along the proposed route at various points; however, these points are in locations that have since been surface mined. An earlier soil survey map (USDA 1911) illustrates a similar situation.

A review of the *Historical Atlas of Alabama, Volume 2, Cemetery Locations by County* (Remington 1999), did not indicate any mapped cemeteries within the project area. Two unknown or indeterminate cemeteries were mentioned. One location was given in Section 18 of Township 20 South, Range 7 West and one in Section 8 of Township 20 South, Range 6 West.

The primary source of information for the research was the Alabama State Archaeological Site Files (ASASF) maintained at the University of Alabama's Office of Archaeological Research at the Moundville Archaeological Park, Moundville, Alabama. No previously recorded sites are located within any of the non-mined portions of the project area. An inventory of previously recorded sites nearest to the project area is presented in Table 1 and on Figures 1 through 4. The majority of the sites are described as low density, unknown aboriginal lithic scatters. Most site forms indicated severe erosion or other disturbances within the site limits.

Table 1. Inventory of Previously Recorded Sites.

Site No.	Location	Component	Description
1Tu575	T21S, R8W, Sec 3	Unknown Aboriginal	Light lithic scatter
1Tu595	T20S, R7W, Sec 31	Unknown Aboriginal	Light lithic scatter
1Tu597	T20S, R7W, Sec 31	Unknown Aboriginal	Light lithic scatter
1Tu598	T20S, R7W, Sec 33	Unknown Aboriginal	Light lithic scatter
1Tu624	T20S, R6W, Sec 8	Unknown Aboriginal	Light lithic scatter
1Tu625	T20S, R6W, Sec 8	Unknown Aboriginal	Light lithic scatter
1Tu626	T20S, R6W, Sec 8	Unknown Aboriginal	Light lithic scatter
1Tu627	T20S, R6W, Sec 8	20 <sup>th</sup> Century Historic	Foundation, artifact scatter
1Tu663	T20S, R8W, Sec 34	Unknown Aboriginal / Historic	Artifact scatter
1Tu664	T20S, R8W, Sec 34	Unknown Aboriginal	Light lithic scatter
1Tu665	T20S, R8W, Sec 25	Unknown Aboriginal	Light lithic scatter
1Tu671	T20S, R8W, Sec 26	Historic	Artifact scatter
1Tu672	T20S, R8W, Sec 36	20 <sup>th</sup> Century Historic	Artifact scatter
1Tu804	T20S, R7W, Sec 30	Unknown Aboriginal	Light lithic scatter
1Je127	T20S, R6W, Sec 3	Unknown Aboriginal	Light lithic scatter
1Je402	T20S, R6W, Sec 10	20 <sup>th</sup> Century Historic	Well, artifact scatter
1Je417	T20S, R6W, Sec 10	20 <sup>th</sup> Century Historic	Well, artifact scatter

Several previous cultural resource surveys have been performed in these portions of Tuscaloosa and Jefferson counties for road construction, surface mining, and methane gas well pad development. Six previous surveys include portions of the current project area. Figure 1 illustrates previous surveys by Walling (1990), Hartzell (1993), Smith (1996), and Ryba (2001). The Hartzell (1993) survey consists of the original route of the dragline to its present location. Figure 2 illustrates the remaining portion of the Walling (1990) survey area and an area surveyed by Lolley (2002). Figure 4 illustrates a previous survey within the project area by Patterson and Hartzell (1992). Each of these previously surveyed areas has been subsequently surface mined or otherwise developed for the proposed intent that required a survey.

Overall, these surveys did not result in the recording of a high number of sites. These areas of Tuscaloosa and Jefferson counties have been subjected to mining and logging activities since the 19<sup>th</sup> century. The terrain and soil characteristics often result in ground surface erosion associated with these activities. Most recorded sites consist of small scatters of lithic or historic material in a surface context.

## **FIELD METHODS**

The project area lies within the Warrior Basin physiographic district of the Cumberland Plateau. Surface water sources along the project area route consist primarily of intermittent drainages. Davis Creek along the eastern portion of the proposed route is the primary surface water source in the project area. The majority of the project area has been previously mined or logged. Typical of the area, the ridges were generally eroded with large amounts of shale and sandstone on the ground surface. It was observed in the field for areas not previously mined, that past logging had resulted in the complete erosion of the surface soil layer across most of the project area.

The Tuscaloosa County Soil Survey (Johnson 1981) indicated one primary soil type within the project area for both Tuscaloosa and the small portion of Jefferson County surveyed. The **Montevallo-Nauvoo association, steep** is described as a well-drained soil on steep hillsides, narrow ridgetops, and drainageways. The surface layer consists of brown fine sandy loam approximately 15 centimeters thick. The subsurface layer is yellowish-brown sandy loam from 15 to 43 centimeters below ground surface. The subsoil is yellowish-red sandy clay loam. Due to the slope and hazard of erosion, the soils within this association are generally suited only for woodland use. As a minority soil type, **Palmerdale very shaly loam, 6 to 45 percent slopes**, was mapped in portions of the project area where previous mining had occurred.

The survey was conducted in accordance with procedural standards set by the Alabama Historical Commission. A standard 30 meter interval transect pattern was employed with shovel tests excavated at 30 meter intervals where previous ground disturbance or slope did not preclude excavation. For areas where it was determined that the surface soil layer was eroded, shovel tests were excavated at 60 meter intervals until surface soils were observed. Excavated shovel tests consisted of standard 30 centimeter (cm) diameter cylindrical holes excavated to the top of the underlying subsoil. Shovel test soils were passed through a 1/4" wire mesh screen to recover any cultural materials, which may have been present. Any roads and areas of ground surface exposure were visually examined for cultural material. A total of 217 transect shovel tests were excavated in the project area.

## LABORATORY METHODS AND COLLECTION CURATION

The cultural material recovered from the project was washed, sorted, and analyzed according to standard laboratory procedures. Once analysis was complete, all the artifacts were placed in labeled archival plastic bags by provenience. The material recovery from the project consisted of lithic debitage and historic ceramics.

The basic sorting criteria for the debitage were based on terminology from Andrefsky (2001). All debitage was size-graded through 25 mm, 12 mm, and 6 mm nested sieves. The flake debitage was sorted based on the presence or absence of a striking platform. Items that did not exhibit a striking platform were sorted as flake shatter. Debitage with more than one ventral and dorsal surface was classified as angular shatter.

For the purposes of this study, the dorsal cortex percentages consisted of three categories. Primary decortication is represented by 50 percent or more cortex, secondary decortication is represented by less than 50 percent of cortex, and tertiary decortication is represented by no cortex. Formal definitions for these terms are in Andrefsky (2001).

All project records and cultural material collected from cultural resource surveys are periodically transported for curation at the Office of Archaeological Research, Erskine Ramsay Archaeological Repository, at the University of Alabama Museums, Moundville.

---

## SURVEY RESULTS AND EVALUATION

The project was initiated in the area illustrated as Figure 1. Almost the entire portion of the project area along this route was previously disturbed. Vehicular and pedestrian reconnaissance was conducted from the current location of the dragline (Figure 5) in Section 4 along the original dragline route (Figure 6) north, crossing Highway 216. The portion of the project area north of the highway in Sections 34, 35, and 36 traversed through a reclaimed surface mine (Figure 7 and 8). Northeast of Brookwood and southwest of Klondike, a small area along Avery Town Road that did not appear to be previously disturbed (Figure 9) was investigated by shovel testing. No cultural material was identified.

The next area examined is illustrated in Figure 2. This point east of Brookwood, the proposed dragline route crosses Highway 216 again and heads south into a previously mined area (Figure 10). The proposed route continued eastward across this large mine area (Figure 11), turning northward through a quarry, and reaching Highway 216 again in Section 28. Transects were traversed east of the quarry along an access road extending from Highway 216 (Figure 12). No cultural material was identified.

The proposed dragline route crosses Highway 216 again and continues along an existing road, crosses railroad tracks, and then turns eastward. This area north of Highway 216 has been previously mined and reclaimed (Figure 13). Numerous methane gas well pads are located in the area. The dragline route continues through this area and then turns south to the relocated Milldale Road.

On the south side of Milldale Road, as depicted on Figure 3, the proposed dragline route enters an area that has not been previously mined. Railroad tracks traverse a portion of the dragline route in Sections 23 and 24. The proposed route generally follows an existing road atop a ridge that varied in width. On the top of the ridge (Figure 14) the surface soil layer was completely eroded, partially caused by previous logging, and the vegetation consisted of 10-15 year old pines with very thick underbrush. The transects continue on each side of the existing road while one transect was traversed along the road to examine the surface for cultural material. This was the typical situation that was observed across most of the remainder of the project area where the modified survey interval of 60 meters was employed. These recorded shovel tests generally consisted of merely removing the ground cover or scraping the ground to reveal any subsoil present at the surface.

One isolated find, **IF-1**, was recorded in Section 23 just east of an intersection of two roads (Figure 3). The find consisted of three pieces of plain whiteware, likely from the same vessel, recovered on the road. The location was recorded at UTM 478242E, 3682622N at an elevation of 550 feet. The thickly vegetated road side was further examined for any additional cultural material; however no shovel tests were excavated around the find due to the presence of subsoil on the ground surface.

The survey was continued to the northeast along these ridges, examining any road surfaces and continuing to confirm the severe ground surface erosion. The road ended at the top of a ridge overlooking Travis Creek. The project area continued along a ridge with very steep side slopes. The ground surface erosion was observed in this area.



The remainder of the project area between Travis Creek and Davis Creek (Figure 3) was similar in nature to the previous area. Numerous roads traversed the ridges within the project area and ground surface erosion was observed. Locations closest to the creeks and slightly sloped were found not to be eroded and standard shovel test intervals were employed to examine these areas. En route to this portion of the project area, another isolated find was recorded in a road that was just south of the project area. Find **IF-2** was recorded at UTM 480509E, 3684007N at an elevation of 530 feet (Figure 3). This single find consisted of a 6mm tertiary flake from a red, heat-treated chert. Shovel tests were attempted, but ground surface erosion was observed around the periphery of the find. Transects continued to the west and southwest along the ridges and roads (Figure 15) to Travis Creek with no additional cultural material recovered.

Also in this area was a proposed alternate dragline route that crossed Davis Creek farther north (Figure 3). This route was examined as the other portions of this area with no cultural material recovery. Overall, shovel tests locations depicted on Figure 3 that retained a surface soil layer were still shallow. A typical shovel test profile consisted of 0-6 centimeters of yellowish-brown (10YR5/6) shaly loam, overlying yellowish-red (5YR5/8) shaly clay loam subsoil.

The survey continued in the area illustrated on Figure 4. The first area examined was just north of Abernant, Alabama on the west and south sides of a previously mined area in Section 18. Aside from the adjacent previously mined area, the portion nearest Davis Creek did not appear disturbed and a standard shovel test interval was employed (Figure 16). Three transects were traversed across this relatively level upland up to the creek bank. Shovel tests indicated 0-18 centimeters of brown (10YR4/3) fine sandy loam, overlying brownish-yellow (10YR6/6) silt loam subsoil.

The survey was then continued north of the previously mined area along another proposed alternate dragline route (Figures 4, 17 and 18). This narrow ridge was similar in vegetation and soil characteristics to those observed in the areas shown on Figure 3, having been previously logged and exhibiting ground surface erosion. Ground surface erosion was evident in initial shovel tests, and the modified 60 meter shovel test interval was employed across the ridges. An existing road was located along the centerline of the project area across most of the ridge and was traversed.

Two isolated finds were recorded along the alternate route in Section 18 (Figure 4). Find **IF-3** was recorded at UTM 481543E, 3685145N at an elevation of 560 feet. This single find was located in the roadway and consisted of red, heat treated chert flake shatter. As with the other finds, the surrounding area was eroded upon shovel testing. The second find, **IF-4**, was also found in a road, at UTM 481250E, 3684835N at an elevation of 540 feet. This find consisted of one 6mm tertiary flake and one piece of angular shatter, both of gray Fort Payne chert. These were found within a few centimeters of each other. No shovel testing was conducted along the road sides due to ground surface erosion. Additional ground surface reconnaissance at both isolated find locations did not result in any additional cultural material recovery.

The survey was continued along the main proposed dragline route in Section 17 (Figure 4). Transects were traversed from the previously mined area, across Johns Road, and farther southeast into a wooded area (Figure 19). A representative soil profile from this area consisted of 0-12 centimeters of yellowish-brown (10YR5/4) shaly loam overlying yellowish-red (5YR4/6) clay subsoil. No cultural material was recovered.

Transects and shovel tests employed the standard interval to where the proposed dragline route turned northeast in Section 17 and was continued along ridges that had been logged in the past and exhibited ground surface erosion.

The project area included a previously surveyed area before turning to the east and northeast paralleling railroad tracks in Section 8 (Figure 4). The transects were continued to a road where the transects were traversed on either side of this road, with visual reconnaissance of the road surface then performed as well. The road continued to the east and northeast into a previously surveyed (Patterson and Hartzell 1992) and previously mined area. The roads were traversed through the previously mined area and along another proposed alternate dragline route that extended to the north and then paralleled the railroad tracks. Some shovel testing was conducted along the alternate route that had not been previously mined, but the shovel tests indicated severe ground surface erosion.

Both the proposed alternate dragline route and the proposed dragline route entered an existing surface mine area (Figure 20). The proposed route was mapped through the existing mine to the proposed dragline staging location. This final portion of the project area was not investigated beyond observing the current land use as an active surface mine.

Through the course of the field investigation, no sites were found. Four isolated finds were recorded, consisting of historic ceramics and prehistoric lithic debitage. The severe erosion of the ground surface, road construction, and previous logging activities resulted in less than optimal conditions for site preservation along the majority of the project area. Most shovel tests consisted of mere removal of the ground cover before subsoil was observed on the ground surface. Previous surface mining across many portions of the project area also limited the areas where field investigations were necessary. Prior cultural resource surveys in the project area and the vicinity indicated that recorded sites were limited to small lithic or historic artifact scatters, primarily within disturbed surface contexts. No standing structures were observed within the proposed dragline route boundary. Structures along the periphery of the project area were limited to modern mining related facilities, trailers used for hunting camps, and manufactured homes.

The dense brush within most portions of the non-mined areas prevented extensive visual observations along transects. The possibility exists that isolated gravestones, unmarked graves, or small cemeteries that were not along the transects may exist. Construction personnel should be advised that if graves or suspected cemeteries are encountered through the development of the dragline route, activities in that area should cease until an archaeologist can be consulted to determine the next course of action.

### ***RECOMMENDATIONS***

This survey was conducted by PELA GeoEnvironmental, Inc. (PELA) for Shannon, LLC through Drummond Co., Inc. in compliance with Federal and State regulations. Based on the field methods employed, no cultural resources eligible or potentially eligible to the NRHP were recorded through the course of the field investigation. It is PELA's opinion that the project will not have any effect on cultural resources. There is always the possibility of undetected cultural resources such as

graves and other features not identified through standard survey methods. If any potential cultural features are revealed through the course of development of the project area, an archaeologist should be contacted to ascertain the nature of these features before development continues.

## REFERENCES

Andrefksy, William, Jr.

2001 *Lithics: Macroscopic Approaches to Analysis*. Cambridge University Press, Cambridge.

Hartzell, Matthew

1993 *A Cultural Resource Survey of the Proposed Drummond Company, Inc. Peterson Mine, Tuscaloosa County, Alabama*. Panamerican Consultants, Inc. Tuscaloosa, Alabama.

Johnson, Kenneth W.

1981 *Soil Survey of Tuscaloosa County*. United States Department of Agriculture, Washington D.C.

Lolley, Terry L.

2002 *A Phase I Archaeological Survey of the Proposed East Brookwood Mine, Tuscaloosa County, Alabama*. P.E. LaMoreaux & Associates, Inc., Tuscaloosa, Alabama.

Patterson, Paul and Matthew Hartzell

1992 *Cultural Resource Survey of the Alabama Land and Mineral Corporations Abernant Area 6 Mine, Tuscaloosa and Jefferson Counties, Alabama*. Panamerican Consultants, Inc. Tuscaloosa, Alabama.

Remington, W. Craig

1999 *Historical Atlas of Alabama, Volume 2, Cemetery Locations by County*. Department of Geography, University of Alabama. Tuscaloosa, Alabama.

Ryba, Elizabeth

2001 *A Phase I Cultural Resource Assessment of the Proposed Boundary of a Segment of SR-216 Near Brookwood, Tuscaloosa County, Alabama*. MRS Consultants, LLC. Tuscaloosa, Alabama.

Smith, Patrick

1996 *An Archaeological Survey of the Brookwood Panther Mine, Tuscaloosa County, Alabama*. Panamerican Consultants, Inc. Tuscaloosa, Alabama.

United States Department of Agriculture

1911 *Soil Map of Tuscaloosa County, Alabama*. Washington D.C.

United States Geological Survey

1932 Yolande 15 Minute Topographic Quadrangle.

1934 Searles 15 Minute Topographic Quadrangle.

1978 Coaling 7.5 Minute Topographic Quadrangle.

1980 Abernant 7.5 Minute Topographic Quadrangle.

1983 Brookwood 7.5 Minute Topographic Quadrangle.

Walling, Richard

1990 *A Cultural Resource Survey of the East Brookwood Permit Area, South of State Route 216, Tuscaloosa County, Alabama*. Panamerican Consultants, Inc. Tuscaloosa, Alabama.



## FIGURES



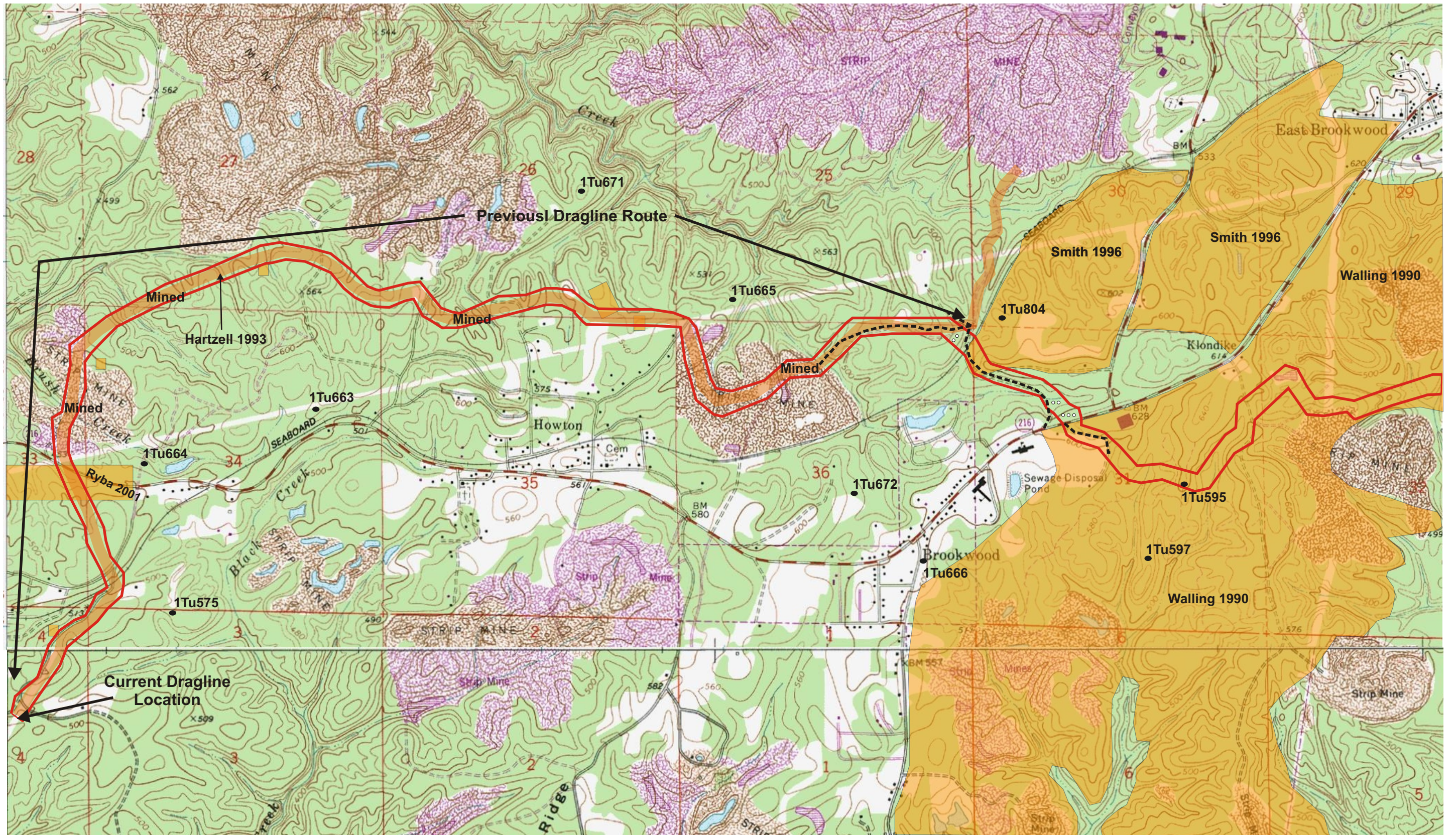
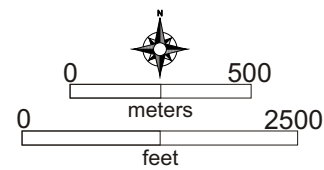


Figure 1. Previously Disturbed Project Area and Previous Dragline Route (Brookwood 1983 and Coaling 1978 USGS 7.5' Topographic Quadrangles).

- Project Area
- Negative Shovel Test
- Recorded Site
- Road
- Previously Mined and/or Surveyed





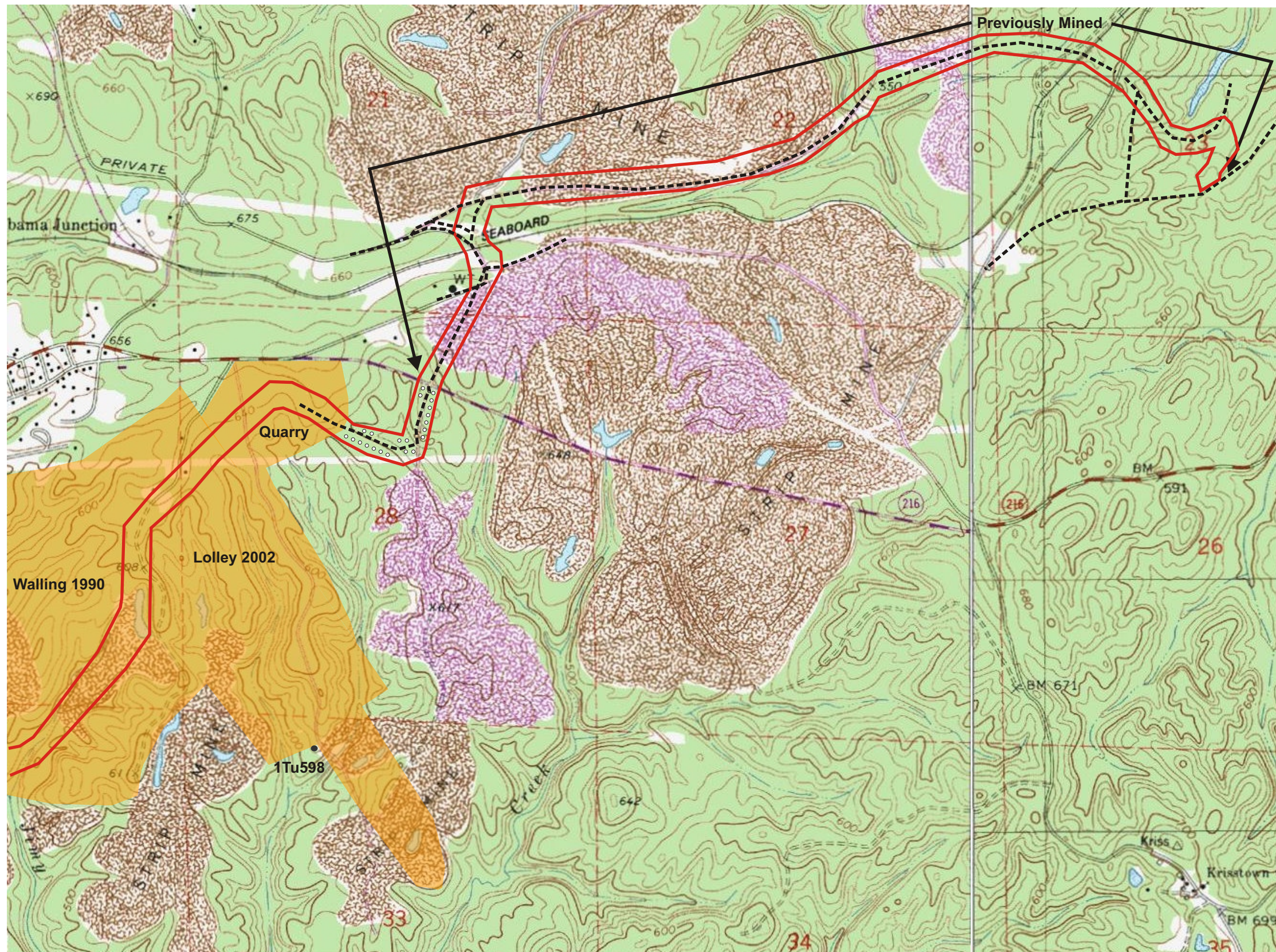
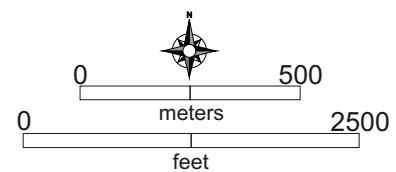


Figure 2. Previously Disturbed Project Area and Proposed Dragline Route (Abernant 1980 and Brookwood 1983 USGS 7.5' Topographic Quadrangles).

- Project Area
- Negative Shovel Test
- Recorded Site
- - - Road
- Previously Mined and/or Surveyed





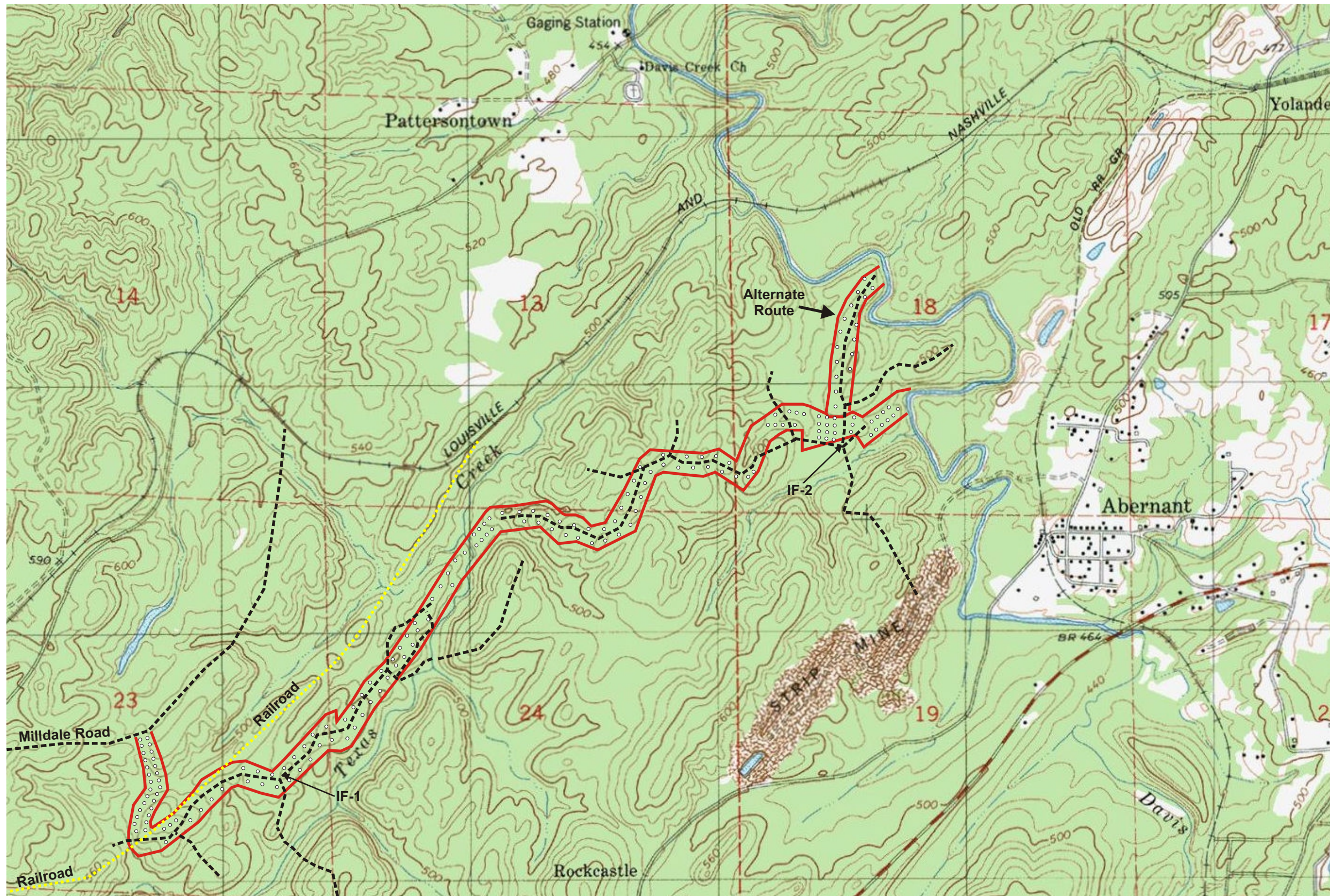
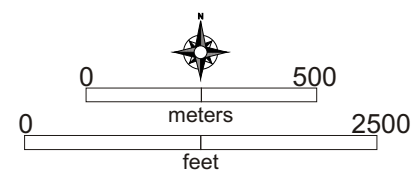


Figure 3. Project Area and Proposed Dragline Route (Abernant 1980 USGS 7.5' Topographic Quadrangle).

- Project Area
- Negative Shovel Test
- Recorded Site
- - - Road
- Previously Mined and/or Surveyed





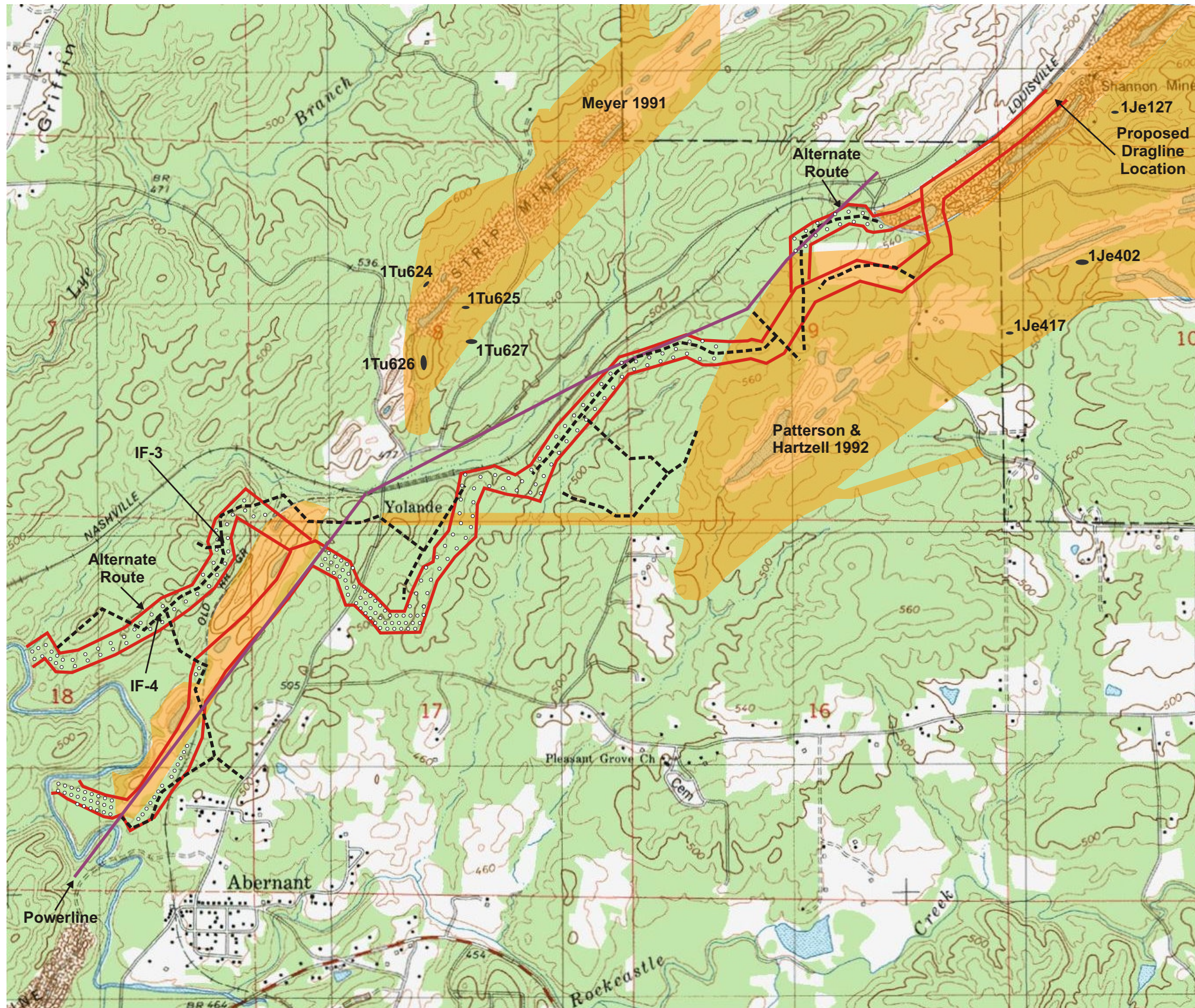


Figure 4. Project Area and Proposed Dragline Route (Abernant 1980 USGS 7.5' Topographic Quadrangle).

- Project Area
- Negative Shovel Test
- Recorded Site
- - - Road
- Previously Mined and/or Surveyed

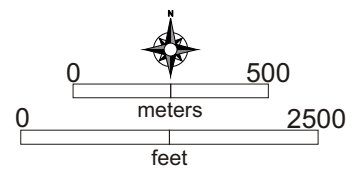






Figure 5. Current Location of Dragline in Section 4.



Figure 6. View of Road and Original Dragline Route in Section 4.



Figure 7. View of Reclaimed Mine in Section 22.



Figure 8. View of Reclaimed Mine in Section 26.



Figure 9. View of Shovel Tested Area in Section 34.



Figure 10. View of the Previously Mined Area in Sections 29, 31, and 32 (Walling 1990 area).





Figure 11. Active Mining in Section 28.



Figure 12. Access Road in Section 28 Leading to Quarry.



Figure 13. Previously Mined Area in Sections 22 and 23.



Figure 14. View of a Road and Vegetation in the Non-Mined Portion Of Section 23.





Figure 15. View of a Road and Vegetation North of IF-2 Facing West.



Figure 16. General View in Section 18 East of Davis Creek.





Figure 17. View of the Vegetation Along an Alternate Route in Section 18.



Figure 18. View of a Road and Ridge Vegetation in Section 8.





Figure 19. View of the Vegetation in Section 17 East of Yolande.



Figure 20. View of the Proposed Dragline Route in Previously Mined Section 9 With The Final Location of the Dragline in the Background.

University of Alabama Museums  
Office of Archaeological Research

THE UNIVERSITY OF  
**ALABAMA**  
MUSEUMS

March 21, 2011

Terry Lolley  
PELA GeoEnvironmental  
PO Box 12  
Lauderdale MS 39335

Dear Terry:

As per your request, this letter is to confirm our agreement to provide curation services for PELA GeoEnvironmental. As you know, we are recognized by a variety of Federal agencies as a repository meeting the standards in 36 CFR Part 79 and have formal agreements to provide curation under these guidelines to agencies such as the Corps of Engineers, National Park Service, Tennessee Valley Authority, U.S. Soil Conservation Service, the U.S. Fish and Wildlife Service, etc.

We appreciate being able to assist you in this matter and look forward to helping in the future.

Sincerely,



Eugene M. Futato, RPA,  
Interim Director