STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

May 13, 2013

Amber Tubbs
McGehee Engineering
P.O. Box 3431
Jasper, Alabama 35502-3431

Re: AHC 08-0621
SMC P-3920
Cultural Resource Assessment
Fishtrap No. 2 Mine, Revision R-3
Jefferson County, Alabama

Dear Ms. Tubbs:

Upon review of the cultural resource assessment conducted by TerraXplorations, we have determined that project activities will have no adverse effect on cultural resources eligible for or listed on the National Register of Historic Places. Therefore, we concur with the proposed project activities. However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately.

We appreciate your efforts on this project. Should you have any questions, please contact Greg Rhinehart at (334) 230-2662 or by e-mail at greg.rhinehart@preserveala.org. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/GCR/gcr

cc: Paul Jackson

A PHASE I CULTURAL-RESOURCES SURVEY FOR THE W.B. MINING-FISHTRAP NO. 2 MINE-REVISION R-3 PROJECT, JEFFERSON COUNTY, ALABAMA

PREPARED BY
TERRAXPLORATIONS, INC.

PREPARED FOR
MCGEHEE ENGINEERING CORPORATION

TerraXplorations, Inc.
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Tuscaloosa, Alabama 35401
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APRIL 2013

McGehee Engineering Corporation
P.O. Box 3431
Jasper, Alabama 35502

A PHASE I CULTURAL-RESOURCES SURVEY FOR THE W.B. MINING-FISHTRAP NO. 2 MINE-REVISION R-3 PROJECT, JEFFERSON COUNTY, ALABAMA

BY

William J. Glass

Prepared for:

McGehee Engineering Corporation
P.O. Box 3431
Jasper, Alabama 35502

Prepared by:

TerraXplorations, Inc.
2301 9th Street, Suite 2
Tuscaloosa, Alabama 35401

Principal Investigator
Paul D. Jackson

April 19, 2013

A PHASE I CULTURAL-RESOURCES SURVEY FOR THE W.B. MINING-FISHTRAP NO. 2 MINE-REVISION R-3 PROJECT, JEFFERSON COUNTY, ALABAMA

INTRODUCTION

TerraXplorations, Inc. (TerraX) of Tuscaloosa, Alabama was contracted by McGehee Engineering Corporation of Jasper, Alabama to conduct a cultural-resources survey for the proposed W.B. Mining-Fishtrap No. 2 Mine-Revision Project in Jefferson County, Alabama. The Phase I survey was performed between March 25, 2013 and March 30, 2013. William Glass, Amy Roberson, Alex Irving, Daniel Lowrey, Greg Hicks, and Jared Zink performed the fieldwork under the direction of Paul D. Jackson, Principal Investigator. The purpose of this study was to determine if any prehistoric or historic properties exist within the limits of the survey tract, and if so to document and assess each based on the National Register of Historic Places (NRHP) criteria.

The project area totals approximately 380 acres located 1.5 miles south of the community of Porter, Alabama, as found on the 1971 (photorevised 1982) Sylvan Springs, Alabama USGS 7.5' topographic quadrangle (Figure 1). The survey area is situated in Sections 34 and 35, Township 16 South, Range 5 West and also in Sections 2 and 3, Township 17 South, Range 5 West.

PROJECT AREA ENVIRONMENT

The survey tract lies within the Warrior Basin district of the Cumberland Plateau physiographic region (Figure 2). These formations are made up of sandstone, siltstone, shale, and thin layers of limestone. The Warrior Basin consists mainly of gentle to moderate sloping ridgetops, which are predominately made up of sandstone-derived soils, steep side slopes of finer sediments, and colluvial material along stream terraces and toe slopes. Massive beds of sandstone cap many of these hills with numerous coal seams found within this Pennsylvanian Age Pottsville Formation. As such, much of the land in the northwestern parts of the county has been or is being mined for coal (Spivey 1982).

The project area consists of gently to steeply sloping landforms and ravines to ridgetops and mesas overlooking Fishtrap Branch and Locust Fork to the west. Previously mined areas are located just north and west of the current proposed mine. Elevations for the study area range between 390 and 710 ft. above mean sea level (AMSL). Vegetation within the project area consisted of poplar, sweetgum, hickory, oak, and pine. Elbow Porter Road bisects the uplands in the northern half of the study area. Additionally, Short Creek Road serves as the northwestern project boundary. Other disturbances to the area include utility corridors and structures, buried pipelines, access roads, timber harvesting, and erosion.

The *Soil Survey of Jefferson County, Alabama* (Spivey 1982) lists two soil types within the survey area, which include Montevallo-Nauvoo association, steep and Nauvoo fine sandy loam (8 to 15 percent slopes). Montevallo-Nauvoo association, steep soils are defined as being well drained soils occurring on mountains and backslopes. These soils generally consist of a surface layer of very dark gray shaly silt loam followed by a yellowish brown very shaly silt loam subsoil. Nauvoo fine sandy loam (8 to 15 percent slopes) are described as strongly sloping, well drained soils found on ridges and upland plateaus. This soil type contains a surface layer of very dark grayish brown and dark brown fine sandy loam followed by a yellowish red clay loam subsoil.

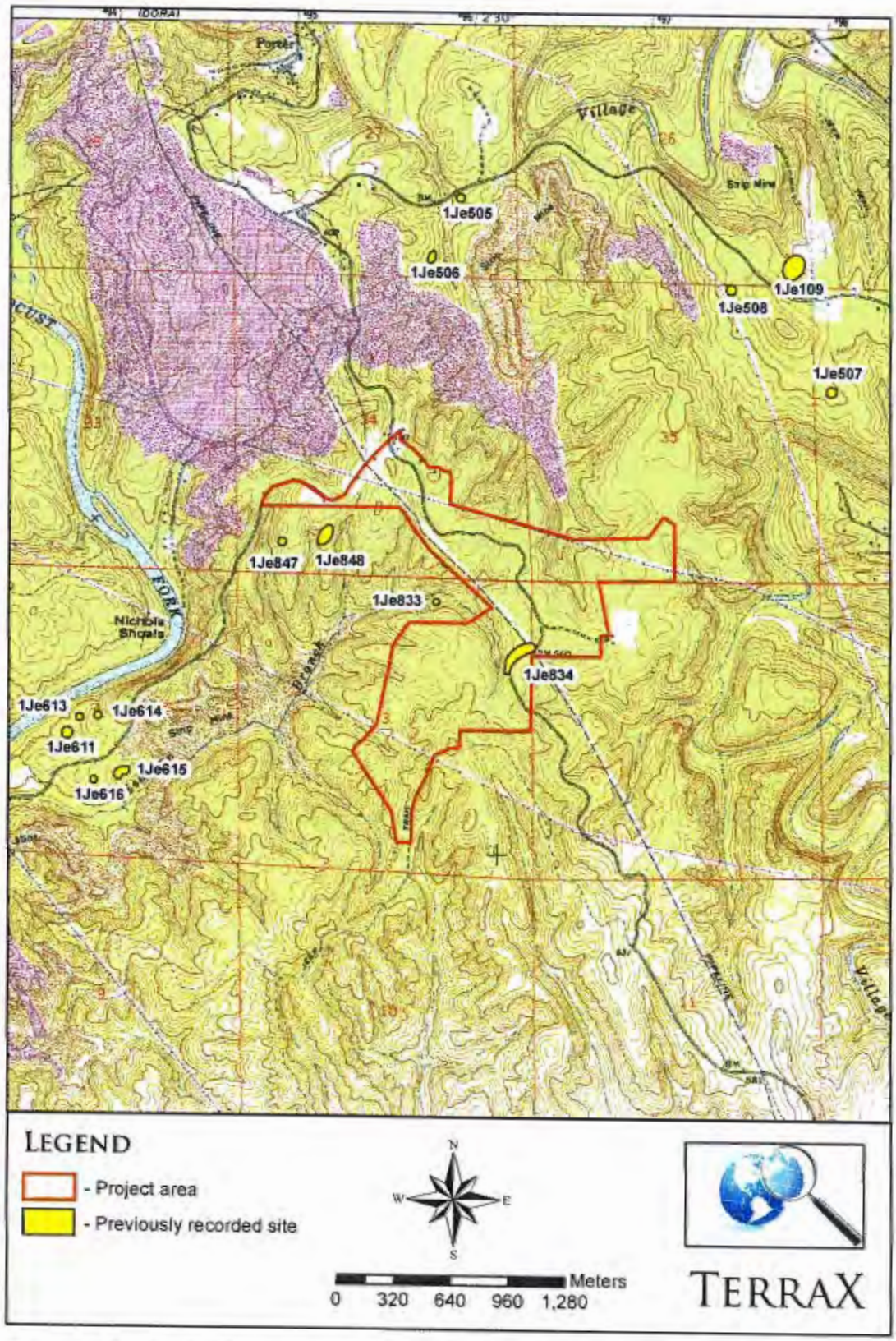

Figure 1. Map showing the project area and nearby previously recorded archaeological sites (based on the 1971 [photorevised 1982] Sylvan Springs, Alabama, USGS 7.5' series topographic quadrangle).

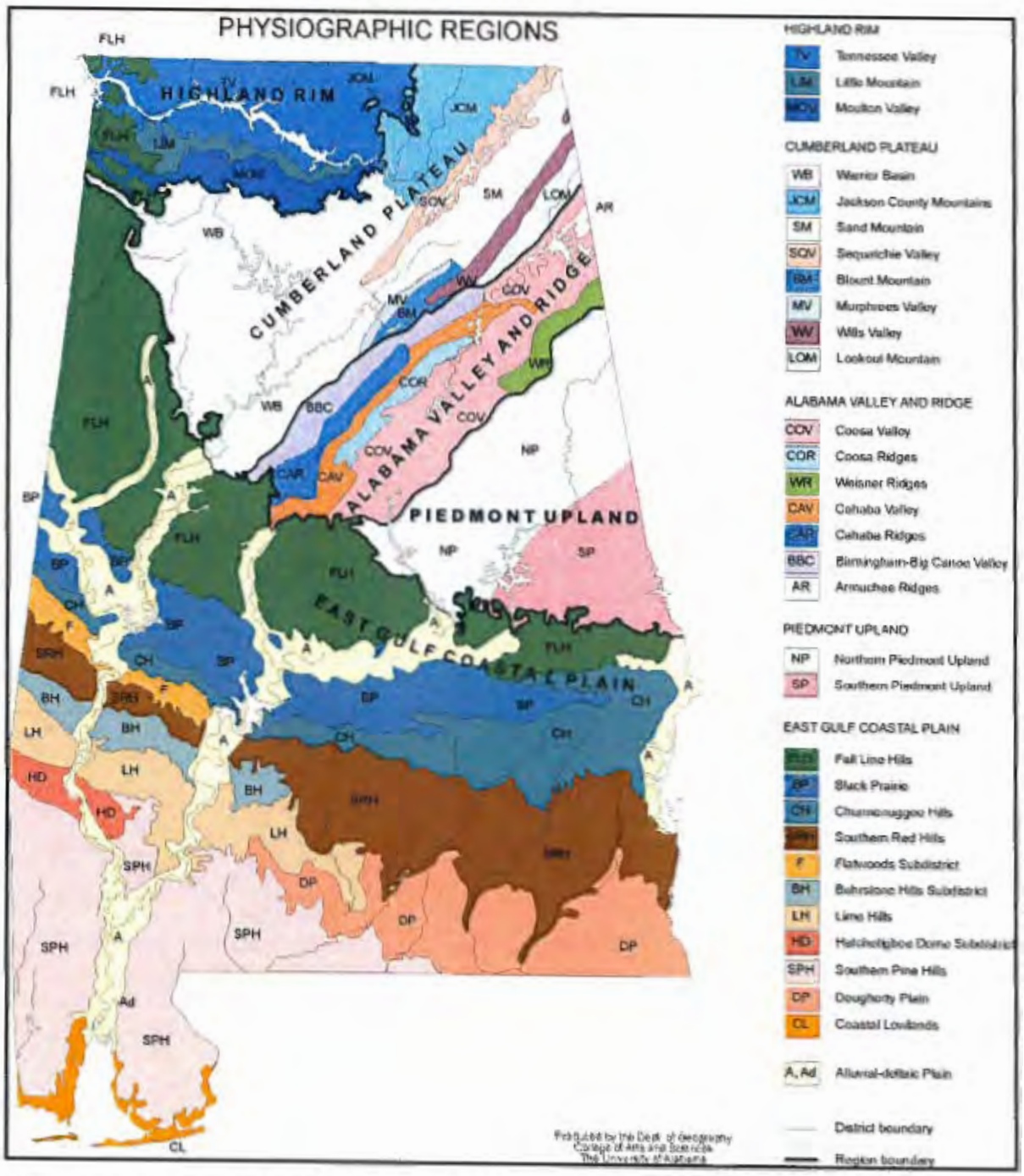

Figure 2. Physiographic Regions Map of Alabama (The University of Alabama 2013).

Figure 3. View of Fishtrap Branch drainage in central portion of project area, looking north.

Figure 4. View of vegetation in northeast portion of project area, looking south-southwest.

Figure 5. *View of rolling topography and pipeline corridor in central portion of project area, looking northeast.*

Figure 6. *View of exposed subsoil in eastern portion of project area, looking west.*

LITERATURE AND DOCUMENT SEARCH

Before conducting the fieldwork, TerraX performed a literature and document search in order to gather pertinent background information regarding the subject property and its surroundings. This research included inspections of the Alabama State Archaeological Site File (ASASF) (Office of Archaeological Research [OAR] 2013), the Alabama Register of Landmarks and Heritage (ARLH) (Alabama Historical Commission 2013), and the National Register of Historic Places (NRHP) (National Park Service 2013).

Research of the ASASF (OAR 2013) identified twenty-four sites within one mile of the subject property (see Figure 1) (Table 1). One of these sites (Site 1Je834) is located within the current project boundaries. This site was revisited during the current study. Also, the 1971 (photorevised 1982) Sylvan Springs, 7.5' topographic quadrangle depicts several structures within the project boundaries. Although none of these structures remain extant, remnants from most of these structures were discovered and documented during this investigation. Research of the ARLH (AHC 2013) and the NRHP (National Park Service 2013) failed to identify any historic properties within or in close proximity to the study area.

TABLE 1. PREVIOUSLY RECORDED SITES WITHIN A ONE-MILE RADIUS OF THE STUDY AREA.

Site Number	NRHP Status	Components	Recorded by	Reference
1Je109	ineligible	unknown aboriginal	Nance Archaeological Services	Hatcher 1982
1Je505	ineligible	unknown aboriginal and 19th century historic	PCI	Elmore 1996
1Je506	ineligible	unknown aboriginal	PCI	Elmore 1996
1Je507	ineligible	unknown aboriginal	PCI	Elmore 1996
1Je508	ineligible	unknown aboriginal	PCI	Elmore 1996
1Je611	ineligible	unknown aboriginal	University of Alabama	Hendryx 2000
1Je613	ineligible	unknown aboriginal	University of Alabama	Hendryx 2000
1Je614	ineligible	unknown aboriginal	University of Alabama	Hendryx 2000
1Je615	ineligible	unknown aboriginal and 20th century historic	University of Alabama	Hendryx 2000
1Je616	ineligible	unknown aboriginal	University of Alabama	Hendryx 2000
1Je833	ineligible	20th century historic	University of Alabama	Meredith 2008
1Je834	undetermined	Early Archaic	University of Alabama	Meredith 2008
1Je847	ineligible	unknown aboriginal	University of Alabama	Meredith 2008
1Je848	ineligible	unknown aboriginal	University of Alabama	Meredith 2008

FIELD METHODS

The Phase I survey was guided by procedural standards created by the Alabama Council of Professional Archaeologists in concurrence with the Alabama Historical Commission's (2002) specifications as outlined in the Policy for Archaeological Surveying and Testing in Alabama. Land coverage requirements were achieved by walking and visually inspecting the entire survey area. Any exposed surfaces were carefully examined for cultural material. For areas determined to have a low probability of containing archaeological deposits (such as graded areas with exposed subsoil, areas of push piles, and low wet drainages) pedestrian walkover was the primary method of survey. For medium to high probability areas, systematic subsurface testing is generally employed.

Typically, subsurface testing is performed judgmentally or along 30-m interval transects comprised of shovel tests spaced 30 m apart. Standard shovel tests consist of 30 centimeter (cm) diameter cylindrical holes excavated to the top of the sterile subsoil layer. Soils from each test are screened through 1/4-inch hardware cloth for the purpose of recovering any cultural material that may exist at that location. When cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to TerraX's laboratory.

This investigation required 361 shovel tests to be attempted along 8 shovel test transects as well as judgmental shovel testing and site delineation. Of these tests, 17 were positive, 295 were negative, and 49 were not excavated due to exposed subsoil, previous mining disturbances, buried pipeline, utility corridors, pushpiles, road disturbances, and sloping topography. Once cultural material was discovered, delineations were performed at 15-m intervals at each loci. A map has been produced showing the placement of transects and judgmental shovel tests conducted during this survey (Figure 7). Delineation shovel test are not represented on this map. And exposed subsoil in the southern half of the project area prevented additional testing.

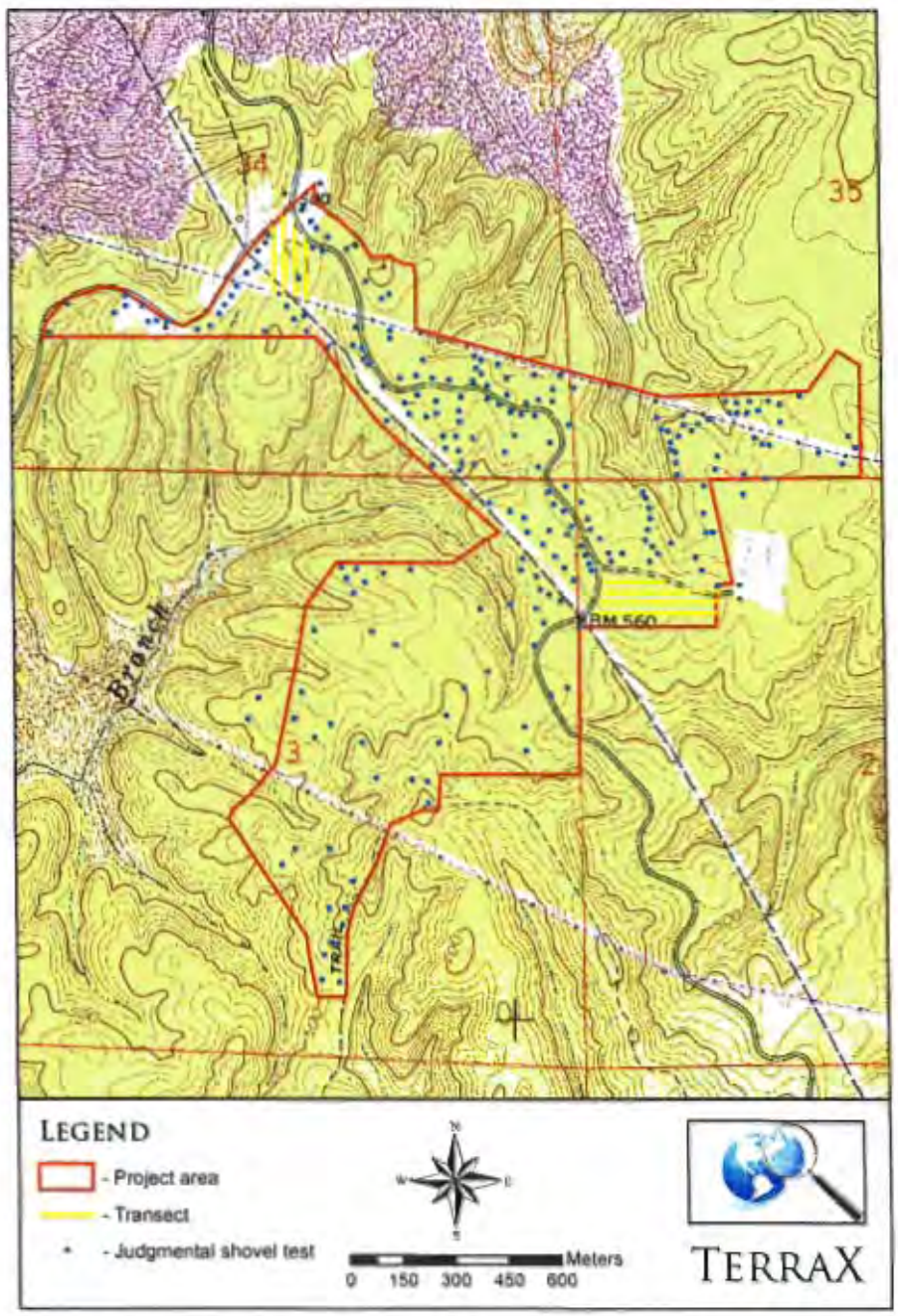

Figure 7. Map showing transects and judgmental shovel test locations within the project boundaries (based on the 1971 [photorevised 1982] Sylvan Springs, Alabama, USGS 7.5' series topographic quadrangle).

Laboratory Methods and Collection Curation

All cultural materials recovered during field projects are delivered to TerraX's laboratory in Tuscaloosa, Alabama for processing. Here, materials are sorted by provenience, cleaned, and analyzed. Along with the cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at the Office of Archaeological Research, Erskine Ramsey Curation Facility, University of Alabama Museums, Moundville, Alabama.

Results of Field Investigation

The survey area encompasses approximately 380 acres located 1.5 miles south of the community of Porter, Alabama. Subsurface testing and visual inspections resulted in the identification of four new archaeological sites (1Je910, 1Je911, 1Je912, and 1Je913) as well as two isolated finds (Isolated Finds 1-2). Additionally, previously recorded Site 1Je834 was revisited during the survey and a small amount of cultural material was collected from this location. Archaeological Site Forms were filled out for the four new archaeological sites. These forms can be found in Appendix C. Lastly, a map has been provided showing the locations of all sites and isolated finds within the survey area (Figure 8).

Site 1Je834 (Revisit). Site 1Je834 was recorded by The University of Alabama in 2008 (Meredith 2008). This site is recorded as an Early Archaic Kirk Horizon Site located at the head of Fishtrap Branch just north of Elbow Porter Road (see Figure 8). Two Kirk Corner Notched projectile points, a biface, a uniface, and a moderate amount of debitage was collected from this site in 2008. During the current study, four chert flakes were recovered from the surface at Site 1Je834. Subsurface testing at the site revealed little to no topsoil and produced no additional cultural material (Figure 9). This site has suffered extensively from logging, erosion, road construction, a pipeline corridor, and the construction of a utility structure on the eastern part of the site. Due to these disturbances, this site is considered ineligible for the NRHP.

Site 1Je910. Site 1Je910 includes the remnants of two twentieth century home sites situated just east of the Elbow Porter Road and Short Creek Road intersection (see Figure 8). Both homes have been razed and timber harvesting and mining activities have destroyed this area. The major axis of the site measures 100 m north-south and 43 m east-west along its minor axis (Figure 10). Pushpiles were seen along the western part of the site and a concrete foundation was also observed. Brick, metal and wood beams, container glass (aqua, clear, amber, and green), an olive green bottle, window glass, an embossed relief molded porcelain insulator with wire nail, an aluminum rivet, a ferrous metal bolt fragment, barbed wire, a metal chain link, slag, and coal were encountered at the site. Site 1Je910 retains little research potential beyond the findings of this investigation. As a result, this site is recommended ineligible for NRHP inclusion.

Site 1Je911. Site 1Je911 represents a twentieth century house site in the northern portion of the study area that has been destroyed (see Figure 8). The site now sits atop a denuded knoll between Elbow Porter Road and a strip mine to the immediate north. The site measures 72-x-40 m (Figure 11). A large drainage basin now occupies the area and all surrounding vegetation has been removed. A small surface collection was made consisting of ceramic tile (blue handpainted, pink glazed, and undecorated), Bristol/Albany glazed stoneware, yellow handpainted whiteware, a decorative brass nameplate stenciled "Karen" "Pat. Pend" (Figure 12), an engraved stainless steel plate "General Temperature", and a wire nail. No shovel testing was conducted due to the disturbed nature of the site (Figure 13). Site 1Je911 is ineligible for NRHP consideration.

Another structure located between Sites 1Je910 and 1Je911 is seen on the 1971 (photorevised 1982) Sylvan Springs, 7.5' topographic quadrangle but that portion of that landform has been removed.

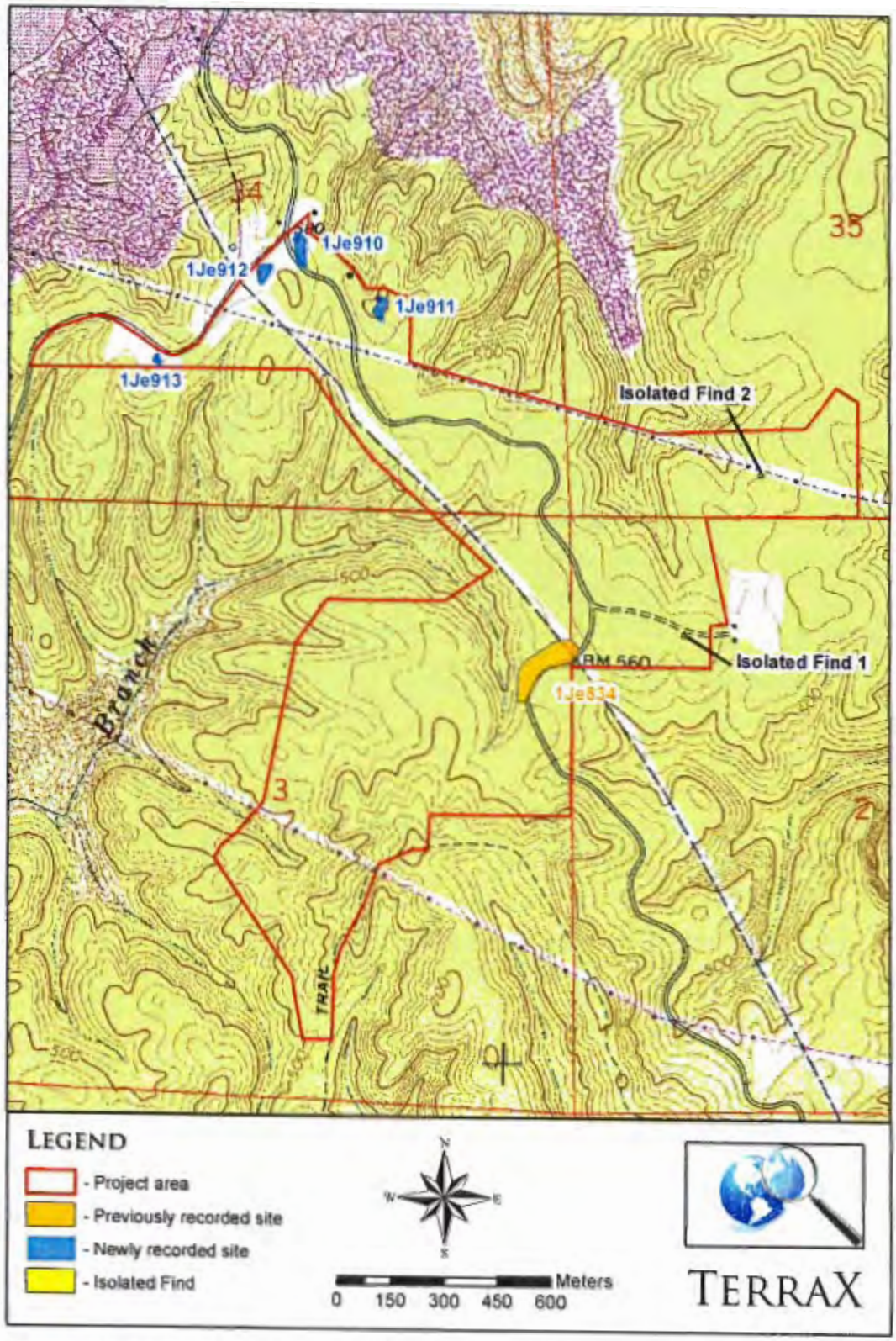

Figure 8. *Map showing newly recorded sites and isolated finds within the study area as well as previously recorded Site 1Je834 (based on the 1971 [photorevised 1982] Sylvan Springs, Alabama, USGS 7.5' series topographic quadrangle).*

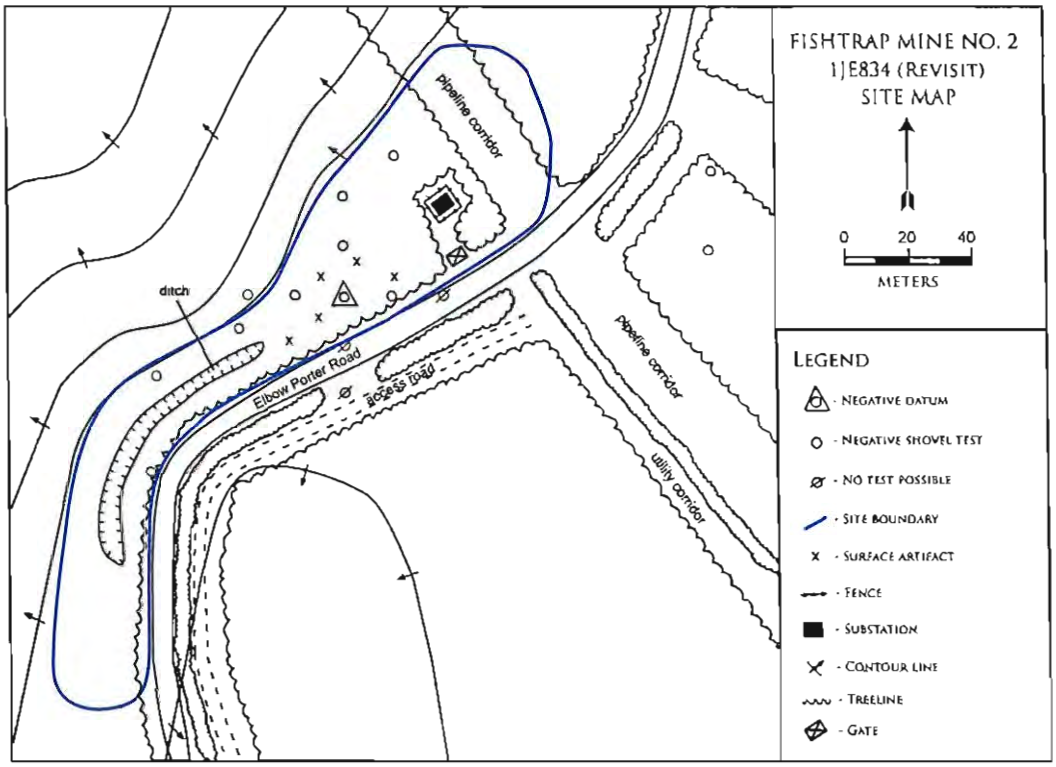

Figure 9. Revisit site map for 1Je834.

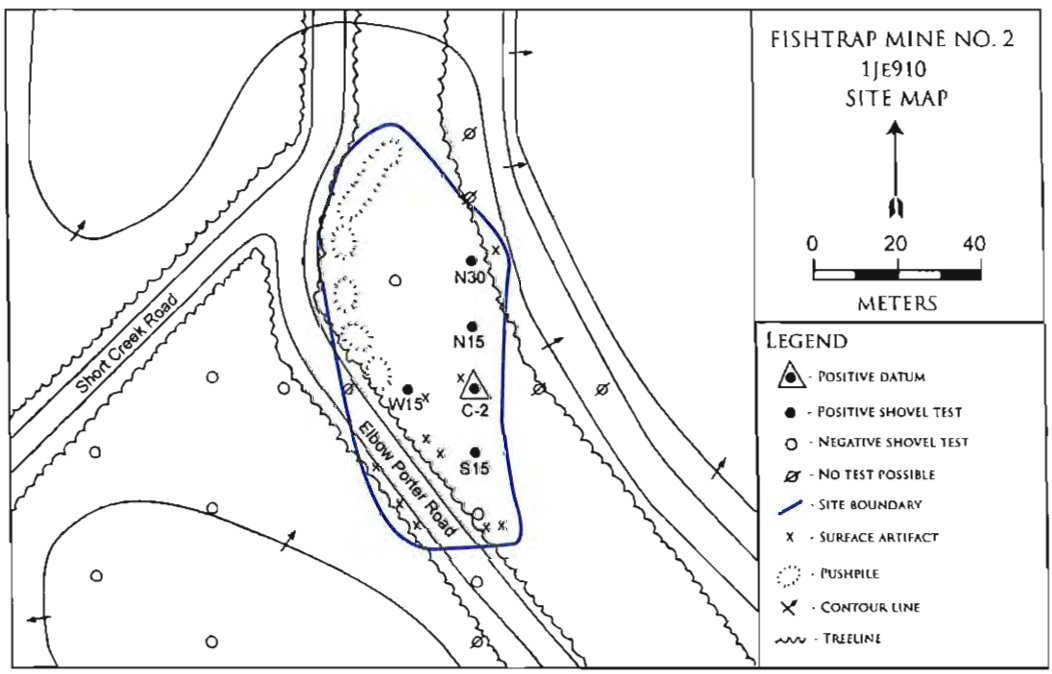

Figure 10. *Site map for 1Je910.*

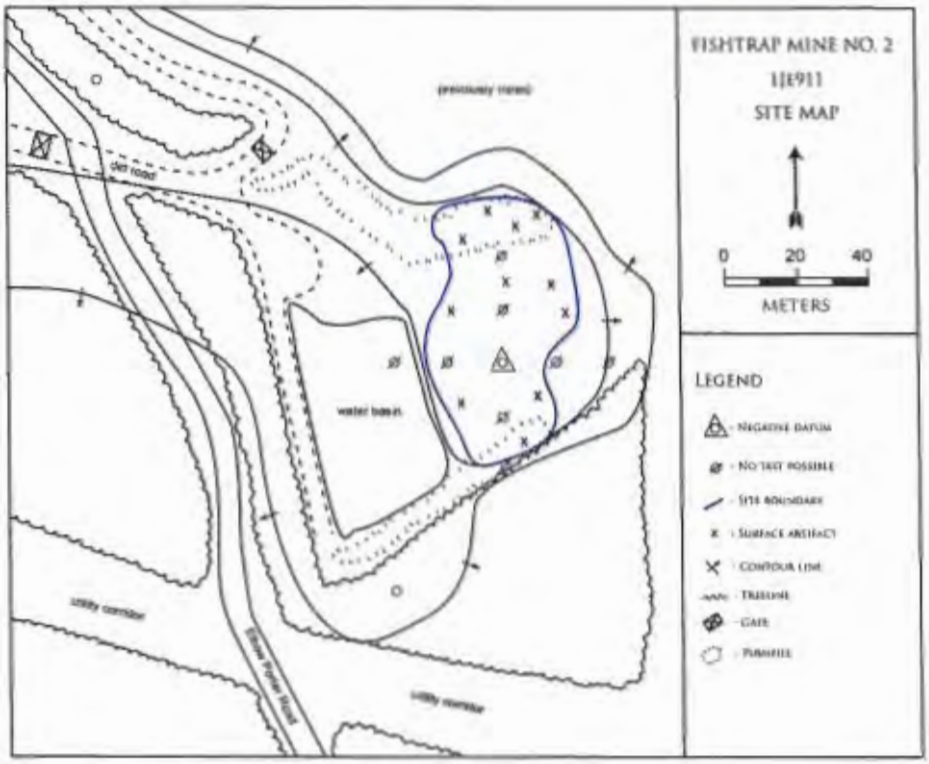

Figure 11. Site map for 1Je911.

Figure 12. Brass stenciled name plate from Site 1Je911.

Figure 13. View of Site 1Je911, looking north.

SITE 1JE912. Site 1Je912 represents a twentieth century house site situated in the northern portion of the study area just south of Short Creek Road (see Figure 8). Road construction and silviculture have impacted the site greatly. The major axis of the site measures 60 m north-south and 48 m east-west along its minor axis (Figure 14). The house has been razed and pushpiles span the perimeter of the site and run for hundreds of meters in a southwest-northeast direction. A concrete foundation, a brick scatter, shingles, charcoal, slag, metal pipe, container glass (aqua, amber, yellow, and clear), relief molded porcelain, Albany glazed stoneware, wire nails, and a clear glass bottle with prescription finish embossed "2.5 Fluid Ounces" (Figure 15) were encountered at the site. Soils are very shallow at this location and the maximum recovery was found at 22 cmbs. Site 1Je912 appears to retain little research potential beyond the findings of this investigation. As a result, this site is recommended ineligible for NRHP inclusion.

SITE 1JE913. Site 1Je913 is the remains of an early twentieth century house site. The site, which measures 40-x-32 m, consists of an artifact scatter surrounding a chimney foundation and concrete foundation blocks just south of Short Creek Road in the northwest portion of the study area (see Figure 8) (Figure 16). Fishtrap Mine No. 1 is located directly south of the site. Vegetation at this site includes a mixture of pines and hardwoods with vines and briars, buttercups, and lilies also present. Roofing tile was observed in nearby pushpiles. Artifacts collected include container glass (clear, amber, aqua, and amethyst), a clear relief molded bottleneck with large mouth external thread finish, window glass, cut nails, wire nails, and a ferrous metal hinge. Due to the disturbances and lack of research potential, Site 1Je913 is ineligible for the NRHP.

ISOLATED FIND 1. Isolated Find 1, which measures 10 m in diameter, yielded a single chert proximal (Figures 17 and 18). This artifact was recovered from a shovel test just south of Forrester Road in the eastern portion of the project boundary. This area is wooded and contains a mixture of pines and hardwoods.

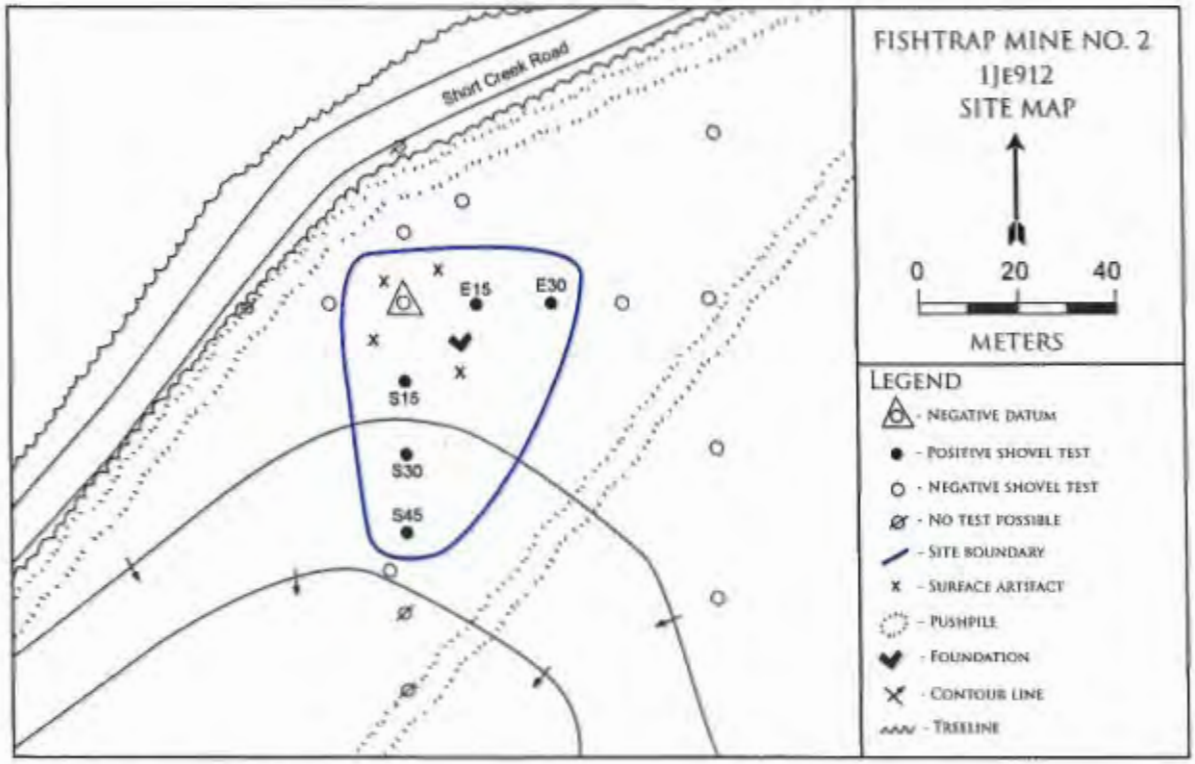

Figure 14. *Site map for 1Je912.*

Figure 15. *Machine made clear bottle embossed "2.5 Fluid Ounces" from Site 1Je912.*

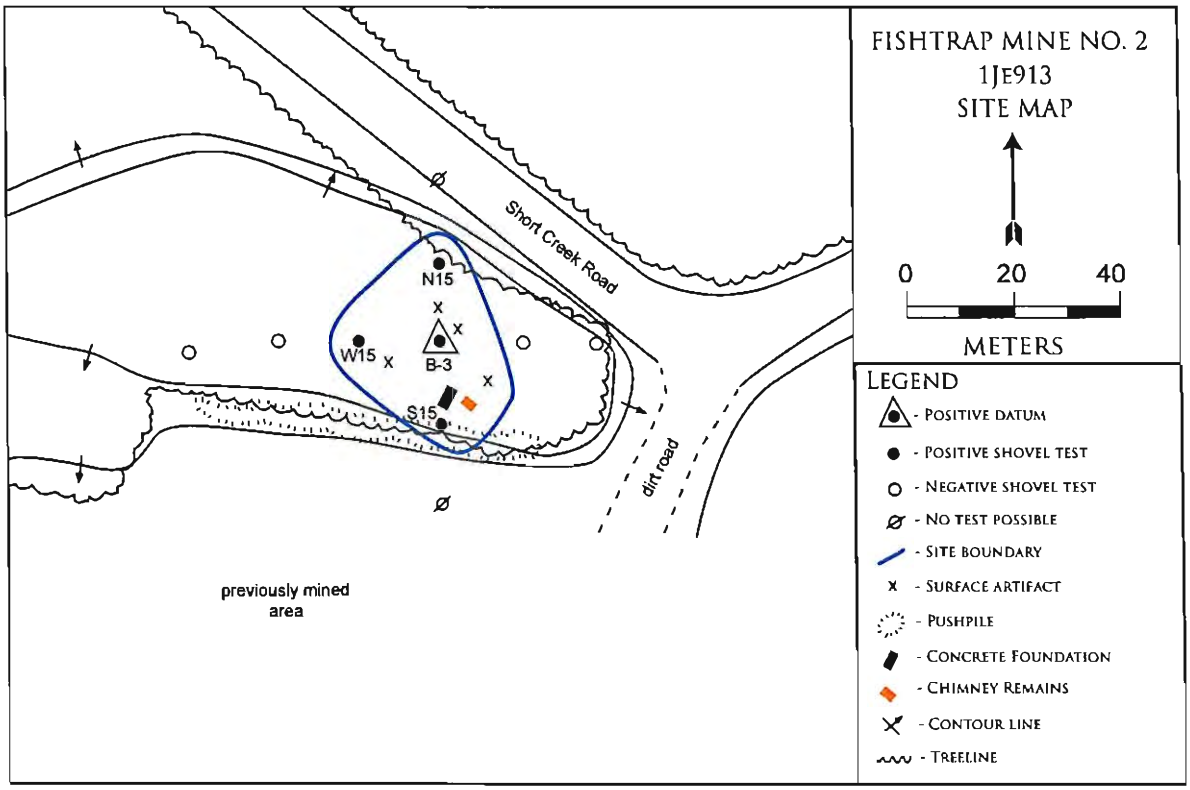

Figure 16. Site map for 1Je913.

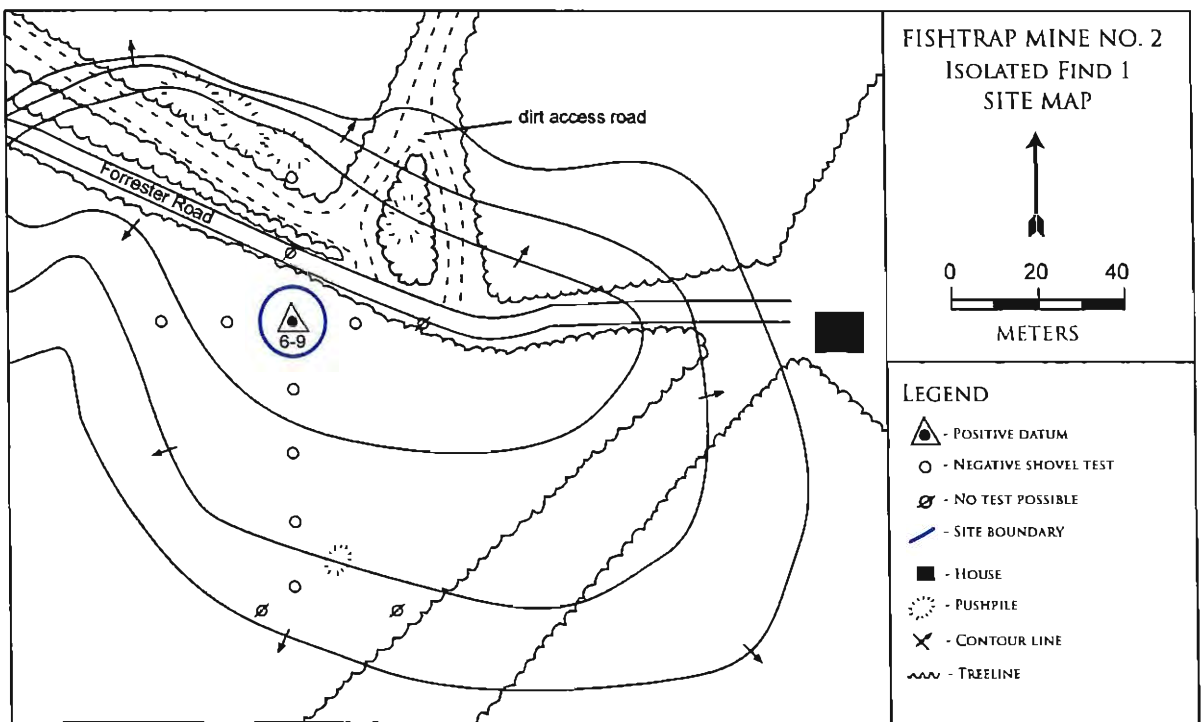

Figure 17. Isolated Find 1 site plan.

Figure 18. *Chert proximal from Isolated Find 1.*

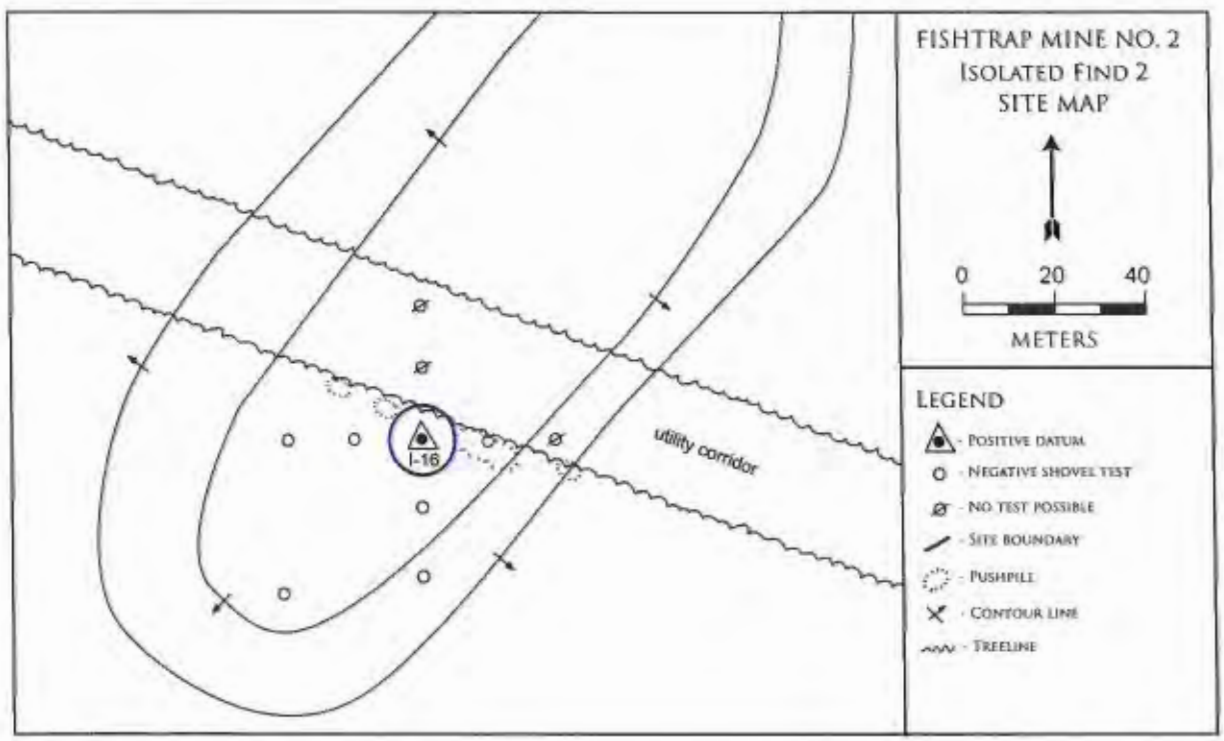

Figure 19. *Isolated Find 1 site plan.*

None of the delineation tests produced cultural material. Due to a paucity of cultural material, Isolated Find 1 appears to retain little research potential beyond the findings of this investigation. Therefore, this isolated find is not recommended for inclusion in the NRHP.

ISOLATED FIND 2. Isolated Find 2, which measures 10 m in diameter, yielded one chert flake. This artifact was recovered from a single shovel test in the eastern portion of the project area just south of a utility corridor (see Figure 8) (Figure 18). None of the delineation tests produced cultural material. Soils at this location are mostly shallow. Due to the absence of other cultural materials within the immediate area, Isolated Find 2 is not recommended for inclusion into the NRHP.

CONCLUSIONS AND RECOMMENDATIONS

TerraX, under contract with McGehee Engineering Corporation, performed the Phase I cultural-resource survey for the proposed W.B. Mining-Fishtrap No. 2 Mine-Revision Project in Jefferson County, Alabama in compliance with federal and state regulations. As a result of this survey, four previously unrecorded archaeological sites (1Je910, 1Je911, 1Je912, and 1Je913) and two isolated finds (Isolated Finds 1-2) were discovered. Additionally, Site 1Je834 was revisited during this investigation. All sites and isolated finds are considered ineligible for the NRHP. It is TerraX's opinion that the proposed W.B. Mining-Fishtrap No. 2 Mine-Revision Project will not adversely impact any significant cultural resources. No further archaeological investigations are recommended for the subject property.

William J. Glass
Archaeologist

Paul D. Jackson
Principal Investigator

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Appendix A
Artifact Inventory List

Artifact Inventory List

Site / Location / Type	Count	Weight (g)	Accession #
1Je834 Revisit			
General Surface Collection			***Bag: 20***
debitage (<1/4-inch heat treated chert flake without cortex)	1	0.1	2013.03684
debitage (1/2-inch heat treated chert flake with cortex)	1	4.3	2013.03686
debitage (1/4-inch heat treated chert flake without cortex)	2	1.5	2013.03685
Location Totals	*4*	5.9	
Site Totals	*4*	*5.9*	
1Je910			
ST C-2/I/0-15 cmbs			***Bag: 3***
glass (window glass)	5	4.0	2013.03604
glass (clear container)	1	2.9	2013.03603
Location Totals	*6*	*6.9*	
15 North/I/II/0-16 cmbs			***Bag: 4***
aluminum rivet	1	0.7	2013.03608
ferrous metal barbed wire	1	4.0	2013.03610
ferrous metal bolt fragment	1	6.6	2013.03609
ferrous metal chain link	1	9.0	2013.03611
glass (amber container)	1	0.6	2013.03607
glass (aqua container)	2	2.8	2013.03606
glass (clear container)	1	0.2	2013.03605
Location Totals	*8*	*23.9*	
30 North/I/II/0-20 cmbs			***Bag: 5***
glass (clear container)	3	1.2	2013.03612
glass (green container)	1	0.3	2013.03613
white plastic	2	1.3	2013.03614
Location Totals	*6*	*2.8*	
15 South/I/0-10 cmbs			***Bag: 6***
aluminum can pull tab	1	0.7	2013.03618
glass (amber container)	2	0.7	2013.03616
glass (amber embossed container)	1	0.5	2013.03617
glass (clear container)	4	2.7	2013.03615
Location Totals	*8*	*4.6*	
15 West/I/II/0-20 cmbs			***Bag: 7***
aluminum "Coca Cola" bottle cap	1	3.8	2013.03623
coal	1	1.2	2013.03625
ferrous metal wire nail	2	3.4	2013.03624
glass (window glass)	5	3.6	2013.03622
glass (amber relief molded container)	1	0.4	2013.03621
glass (clear container)	5	3.2	2013.03619
glass (clear embossed relief molded base)	1	4.7	2013.03620
slag	3	1.6	2013.03626
Location Totals	*19*	*21.9*	
General Surface Collection			***Bag: 8***
brick fragment	1	148.0	2013.03631

Site	Location	Type	Count	Weight (g)	Accession #
		embossed relief molded porcelain bottle stopper with ferrous metal wire nail "WP 5 USA"	1	40.4	2013.03630
		glass (clear container)	2	5.6	2013.03628
		glass (clear embossed relief molded base)	1	7.6	2013.03629
		glass (olive green embossed relief molded bottle "10 FL OZ", "No Refill", "Dispose of Properly")	1	200.6	2013.03627
		Location Totals	*6*	*402.2*	
Site Totals			*53*	*462.3*	
1Je911					
	General Surface Collection				***Bag: 9***
		blue hand painted ceramic tile fragment	1	2.3	2013.03635
		Bristol glazed exterior/ Albany glazed interior stoneware	1	18.0	2013.03632
		decorative stenciled brass name plate "Karen", "PAT. PEND"	1	3.7	2013.03637
		engraved stainless steel plate "General Temperature"	1	3.5	2013.03638
		ferrous metal wire nail fragment	1	1.7	2013.03639
		pink glazed ceramic tile fragment	2	24.1	2013.03636
		undecorated ceramic tile fragment with partial stamped maker's mark	1	5.7	2013.03634
		yellow hand painted whiteware base	1	15.6	2013.03633
		Location Totals	*9*	*74.6*	
Site Totals			*9*	*74.6*	
1Je912					
	General Surface Collection				***Bag: 10***
		glass (clear embossed bottle "2 1/2 Fluid Ounces" with machine-made prescription finish)	1	139.9	2013.03640
		Location Totals	*1*	*139.9*	
	15 East/I/II/0-15 cmbs				***Bag: 11***
		asphalt shingle fragment	6	3.6	2013.03645
		charcoal	2	0.7	2013.03646
		ferrous metal wire nail	2	8.1	2013.03643
		ferrous metal wire nail fragment	2	5.1	2013.03644
		glass (amber relief molded container)	1	4.1	2013.03642
		relief molded porcelain base	1	2.3	2013.03641
		Location Totals	*14*	*23.9*	
	15 South/I/II/0-15 cmbs				***Bag: 12***
		brick fragment	2	21.4	2013.03650
		glass (aqua container)	1	0.2	2013.03648
		glass (clear relief molded container)	2	1.3	2013.03647
		white stainless steel nail	1	0.6	2013.03649
		Location Totals	*6*	23.5	
	30 South/I/II/0-12 cmbs				***Bag: 13***
		Albany glazed stoneware	1	1.4	2013.03656
		ferrous metal wire nail	2	13.2	2013.03657
		glass (clear base)	1	51.9	2013.03654
		glass (clear container)	5	2.1	2013.03651
		glass (clear embossed container)	1	0.7	2013.03652
		glass (clear relief molded container)	2	3.6	2013.03653
		glass (yellow container)	1	3.3	2013.03655
		stainless steel bar	1	19.3	2013.03658
		Location Totals	*14*	*95.5*	

Site	Location	Type	Count	Weight (g)	Accession #
	4 South/I/II/0-13 cmbs				***Bag: 14***
		glass (aqua container [2=1])	3	19.1	2013.03662
		glass (clear container)	4	3.8	2013.03659
		glass (clear embossed container)	1	1.4	2013.03661
		glass (clear relief molded container)	1	0.5	2013.03660
		slag	9	18.9	2013.03663
		Location Totals	*18*	*43.7*	
	30 East/I/II/III/0-22 cmbs				***Bag: 15***
		brick fragment	1	5.7	2013.03667
		ferrous metal wire nail	1	2.5	2013.03668
		glass (aqua flat glass)	1	0.3	2013.03666
		glass (clear container)	1	0.4	2013.03664
		glass (clear lip)	1	0.3	2013.03665
		Location Totals	*5*	*9.2*	
Site Totals			*58*	*335.7*	
1Je913					
	ST B-3/I/0-15 cmbs				***Bag: 16***
		glass (aqua container)	1	1.9	2013.03669
		Location Totals	*1*	*1.9*	
	15 West/I/0-8 cmbs				***Bag: 17***
		glass (amethyst container)	1	2.2	2013.03673
		glass (clear container)	1	6.2	2013.03670
		glass (clear relief molded bottleneck with large mouth external thread finish)	1	5.8	2013.03672
		glass (clear relief molded container)	1	2.1	2013.03671
		Location Totals	*4*	*16.3*	
	15 North/I/II/15-30 cmbs				***Bag: 18***
		glass (clear container)	1	0.4	2013.03674
		glass (clear embossed container)	1	18.4	2013.03675
		Location Totals	*2*	*18.8*	
	15 South/I/0-10 cmbs				***Bag: 19***
		brick fragment	1	164.1	2013.03683
		ferrous metal hinge with undifferentiated ferrous metal	1	55.5	2013.03682
		ferrous metal machine-cut nail	2	24.0	2013.03680
		ferrous metal wire nail	2	10.1	2013.03681
		glass (window glass)	5	4.7	2013.03679
		glass (amber container)	1	0.5	2013.03678
		glass (clear melted container)	7	18.3	2013.03677
		glass (clear melted relief molded container)	2	3.1	2013.03676
		Location Totals	*21*	*280.3*	
Site Totals			*28*	*317.3*	
Isolated Find 1					
	T 6 ST 9/II/15 cmbs				***Bag: 1***
		heat treated chert proximal	1	3.5	2013.03601
		Location Totals	*1*	*3.5*	
Site Totals			*1*	*3.5*	
Isolated Find 2					

Site	Location	Type	Count	Weight (g)	Accession #
	ST I-16/II/15 cmbs				***Bag: 2***
		debitage (1/2-inch heat treated chert flake with cortex)	1	2.6	2013.03602
		Location Totals	*1*	2.6	
Site Totals			*1*	2.6	
Project Totals			*154*	*1201.9*	

Appendix B
Curation Agreement

ALABAMA

April 20, 2012

Paul Jackson
TerraXplorations
3323 18th Avenue NE
Tuscaloosa AL 35406

Dear Paul

As per your request, this letter is to confirm our standing agreement with you to provide curation services to TerraXplorations on an as-needed basis. 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 National Park Service, U. S. Fish and Wildlife Service, U. S. Soil Conservation Service, U.S. Army Corps of Engineers, Tennessee Valley Authority, National Forest Service, etc.

Please be advised that once a year we must be notified of all reports in which we were named as the repository. Project collections must be submitted within one calendar year of completion. Small projects may be compiled for periodic submission. The MOU survey policy specifies which materials must be curated (Administrative Code of Alabama, Chapter 460-X-9). Renewal of this agreement is contingent upon compliance.

We appreciate this opportunity to be of assistance and look forward to working with you in the future.

Sincerely,

Eugene Futato

Eugene M. Futato RPA
Deputy Director

Appendix C
Alabama State Archaeological Site File Forms

Site: JE913 Retrieve Site

Site Name: SHORT CREEK ROAD 2

Location and Size

Easting: 495156 Northing: 3717717 Elevation: 590

Township: 16S Range: 05W Section: 34

NE 1/4 of NE 1/4 of SW 1/4

Major Axis: 40 Minor Axis: 32 Max Depth: 30

Location and Size

Preservation State: LOGGING

Immediate Destruction Pending: Y Looting/Vandalism: N % Destroyed: 90

National Register Status: NO

Archaeological Information

Level of Investigation: INTENSIVE

Excavation Status: SURFACE & SHOVEL

Topographic Association: UPLAND BASE

Physiographic District: WARRIOR

Physiographic Section: CUMBERLAND

Nearest Water Source: SPRING

Direction To: E Distance To: 200 At Confluence: N

Drainage Basin: WARRIOR

Ground Cover: CULTIVATION

Soil Type: NAUVOO

Soil Texture Class: SANDY CLAY

County Soil Survey: null

Degree of Disturbance: ENTIRE

Characteristics

☐ Human Remains	☐ Stone Mound(s)
☐ Features	☐ Weir
☐ Petroglyph/Pictrograph	☐ Quarry
☐ Rockshelter	☐ Standing Historic Structure
☐ Cave	☑ Historic Structure Site
☐ Artifact Scatter	☐ Historic Cemetery
☐ Midden	☐ Still
☐ Shell Midden	☐ Mill
☐ Single Earthen Mound	☐ Engineering
☐ Multiple Earthen Mound	☐ Other

Components

20TH CENTURY

Comments

THIS SITE IS COMPRISED OF A 20TH CENTURY ARTIFACT SCATTER SURROUNDING A CHIMNEY FOUNDATION AND CONCRETE FOUNDATION BLOCKS JUST SOUTH OF SHORT CREEK ROAD. FISHTRAP MINE NO. 1 IS LOCATED DIRECTLY SOUTH OF THE SITE. ROOFING TILE WAS OBSERVED IN NEARBY PUSHPILES AND A FEW CUT AND WIRE NAILS, CONTAINER GLASS (AMETHYST, AMBER, CLEAR), BRICK FRAGS, AND UFM WERE RECOVERED. THIS SITE IS INELIGIBLE FOR THE NRHP.

USGS 7.5' Topographic Map: SYLVAN SPRINGS

Record Type: ☑ Clear ☐ Master ☐ Synonym

Form Status: ☐ Final ☐ Verified ☑ New

Form Completion: ☐ Final ☐ Map Search ☐ Literature Search

Sponsor Type: ? Sponsored By: ?

Recorder Type: PRI Recorded By: TerraXplorations

Date Submitted: 2013-04-16 Date Revised: 2013-04-16

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Site: JE912 Retrieve Site

Site Name: SHORT CREEK ROAD 1

Location and Size

Easting: 495456 Northing: 3717964 Elevation: 590

Township: 16S Range: 05W Section: 34

NE 1/4 of NE 1/4 of SW 1/4

Major Axis: 60 Minor Axis: 48 Max Depth: 22

Location and Size

Preservation State: LOGGING

Immediate Destruction Pending: Y Looting/Vandalism: N % Destroyed: 95

National Register Status: NO

Archaeological Information

Level of Investigation: INTENSIVE

Excavation Status: SURFACE & SHOVEL

Topographic Association: UPLAND BASE

Physiographic District: WARRIOR

Physiographic Section: CUMBERLAND

Nearest Water Source: SPRING

Direction To: SW Distance To: 175 At Confluence: N

Drainage Basin: WARRIOR

Ground Cover: CULTIVATION

Soil Type: NAUVOO

Soil Texture Class: SANDY CLAY

County Soil Survey: null

Degree of Disturbance: ENTIRE

Characteristics

☐ Human Remains	☐ Stone Mound(s)
☐ Features	☐ Weir
☐ Petroglyph/Pictrograph	☐ Quarry
☐ Rockshelter	☐ Standing Historic Structure
☐ Cave	☑ Historic Structure Site
☐ Artifact Scatter	☐ Historic Cemetery
☐ Midden	☐ Still
☐ Shell Midden	☐ Mill
☐ Single Earthen Mound	☐ Engineering
☐ Multiple Earthen Mound	☐ Other

Components

20TH CENTURY

Comments

THIS SITE REPRESENTS A 20TH CENTURY HOME SITE JUST SOUTH OF SHORT CREEK ROAD. ROAD CONSTRUCTION AND SILVICULTURE HAVE IMPACTED THE SITE GREATLY. THE HOUSE HAS BEEN RAZED WITH PUSHPILES OBSERVED FOR HUNDREDS OF METERS RUNNING IN A SW-NE DIRECTION. MANY BRICKS WERE NOTICED ON THE SURFACE ALONG WITH A CONCRETE FOUNDATION, METAL PIPE, CONTAINER GLASS, UNDECORATED PORCELAIN, FINISHING NAILS, WIRE NAILS, AND A CLEAR GLASS BOTTLE. THIS SITE IS INELIGIBLE FOR THE NRHP.

USGS 7.5' Topographic Map: SYLVAN SPRINGS

Record Type: ☑ Clear ☐ Master ☐ Synonym

Form Status: ☐ Final ☐ Verified ☑ New

Form Completion: ☐ Final ☐ Map Search ☐ Literature Search

Sponsor Type: ? Sponsored By: ?

Recorder Type: PRI Recorded By: TerraXplorations

Date Submitted: 2013-04-16 Date Revised: 2013-04-16

Top of Page

Site: JE911 Retrieve Site

Site Name: ELBOW PORTER 2

Location and Size

Easting: 495785 Northing: 3717867 Elevation: 610

Township: 16S Range: 05W Section: 34

SE 1/4 of NW 1/4 of SE 1/4

Major Axis: 72 Minor Axis: 40 Max Depth: 0

Location and Size

Preservation State: BORROW PIT

Immediate Destruction Pending: Y Looting/Vandalism: N % Destroyed: 95

National Register Status: NO

Archaeological Information

Level of Investigation: INTENSIVE

Excavation Status: SURFACE & SHOVEL

Topographic Association: UPLAND CRES

Physiographic District: WARRIOR

Physiographic Section: CUMBERLAND

Nearest Water Source: FIRST

Direction To: SW Distance To: 428 At Confluence: N

Drainage Basin: WARRIOR

Ground Cover: ?

Soil Type: SANDY CLAY

Soil Texture Class: NAUVOO

County Soil Survey: null

Degree of Disturbance: ENTIRE

Characteristics

☐ Human Remains	☐ Stone Mound(s)
☐ Features	☐ Weir
☐ Petroglyph/Pictrograph	☐ Quarry
☐ Rockshelter	☐ Standing Historic Structure
☐ Cave	☑ Historic Structure Site
☐ Artifact Scatter	☐ Historic Cemetery
☐ Midden	☐ Still
☐ Shell Midden	☐ Mill
☐ Single Earthen Mound	☐ Engineering
☐ Multiple Earthen Mound	☐ Other

Components

20TH CENTURY

Comments

THIS SITE REPRESENTS A FORMER 20TH CENTURY RESIDENCE ATOP A KNOLL JUST EAST OF ELBOW PORTER ROAD. MINING AND TIMBER CULTIVATION HAVE DESTROYED THIS SITE. MATERIAL FOUND ON THE SURFACE INCLUDES BRISTOL AND ALBANY GLAZED STONEWARE, ANNULAR BANDED WHITEWARE, CERAMIC TILE, AND A BRASS MONOGRAMMED NAMEPLATE ENGRAVED "KAREN". A LARGE DRAINAGE BASIN NOW OCCUPIES MUCH OF THE SITE FOLLOWING MINING ACTIVITIES. NO TOPSOIL REMAINS. THIS SITE IS INELIGIBLE FOR THE NRHP.

USGS 7.5' Topographic Map: SYLVAN SPRINGS

Record Type: ☑ Clear ☐ Master ☐ Synonym

Form Status: ☐ Final ☐ Verified • New

Form Completion: ☐ Final ☐ Map Search ☐ Literature Search

Sponsor Type: ? Sponsored By: ?

Recorder Type: PRI Recorded By: TerraXplorations

Date Submitted: 2013-04-16 Date Revised: 2013-04-16

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Site: JE910 Retrieve Site

Site Name: ELBOW PORTER 1

Location and Size

Easting: 495557 Northing: 3718027 Elevation: 590

Township: 16S Range: 05W Section: 34

NW 1/4 of NW 1/4 of SE 1/4

Major Axis: 100 Minor Axis: 43 Max Depth: 20

Location and Size

Preservation State: LOGGING

Immediate Destruction Pending: Y Looting/Vandalism: N % Destroyed: 95

National Register Status: NO

Archaeological Information

Level of Investigation: INTENSIVE

Excavation Status: SURFACE & SHOVEL

Topographic Association: UPLAND BASE

Physiographic District: WARRIOR

Physiographic Section: CUMBERLAND

Nearest Water Source: FIRST

Direction To: SW Distance To: 275 At Confluence: N

Drainage Basin: WARRIOR

Ground Cover: CULTIVATION

Soil Type: SANDY CLAY

Soil Texture Class: NAUVOO

County Soil Survey: null

Degree of Disturbance: ENTIRE

Characteristics

☐ Human Remains	☐ Stone Mound(s)
☐ Features	☐ Weir
☐ Petroglyph/Pictrograph	☐ Quarry
☐ Rockshelter	☐ Standing Historic Structure
☐ Cave	☑ Historic Structure Site
☐ Artifact Scatter	☐ Historic Cemetery
☐ Midden	☐ Still
☐ Shell Midden	☐ Mill
☐ Single Earthen Mound	☐ Engineering
☐ Multiple Earthen Mound	☐ Other

Components

20TH CENTURY

Comments

THIS SITE INCLUDES THE REMAINS OF TWO 20TH CENTURY HOME SITES SITUATED JUST EAST OF THE ELBOW PORTER ROAD AND SHORT CREEK ROAD INTERSECTION. BOTH HOMES HAVE BEEN DESTROYED BY TIMBER HARVESTING AND MINING ACTIVITIES. WOOD BEAMS, A CONCRETE FOUNDATION, ROOFING TILE, WINDOW GLASS, CONTAINER GLASS (MACHINE MADE), WIRE NAILS, BRICK FRAGMENTS, AND PORCELAIN WERE ENCOUNTERED AT THE SITE. THIS SITE IS RECOMMENDED INELIGIBLE FOR NRHP CONSIDERATION.

USGS 7.5' Topographic Map: SYLVAN SPRINGS

Record Type: ☑ Clear ☐ Master ☐ Synonym

Form Status: ☐ Final ☐ Verified ☑ New

Form Completion: ☐ Final ☐ Map Search ☐ Literature Search

Sponsor Type: ? Sponsored By: ?

Recorder Type: PRI Recorded By: TerraXplorations

Date Submitted: 2013-04-16 Date Revised: 2013-04-16

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BIOLOGICAL HABITAT ASSESSMENT

INDIANA BAT SURVEY

W B MINING

FISHTRAP NO. 2 MINE

REVISION R-3

Prepared For:
W B MINING

421 acres +/-
Sections 34 & 35, Township 16 South, Range 5 West
Sections 2 & 3, Township 17 South, Range 5 West

ALL IN
JEFFERSON COUNTY ALABAMA

June 14th, 2013

MCGEHEE
ENGINEERING CORP.
P. O. Box 3431
450 19th Street West
Jasper, Alabama 35502-3431
Telephone: (205) 221-0686
Fax: (205) 221-7721

L. Stephen Blankenship
Email: stephenb@mcgehee.org

BIOLOGICAL HABITAT ASSESSMENT

INDIANA BAT SURVEY

Prepared For:

WB MINING, LLC

FISHTRAP NO. 2 MINE

REVISION R-3

421 acres +/-
Section 34 & 35 Township 16 South, Range 5 West
Section 2 & 3 Township 17 South, Range 5 West

ALL IN
JEFFERSON COUNTY ALABAMA

Prepared by:

MCGEHEE ENGINEERING CORP.
P. O. Box 3431
450 19th Street West
Jasper, Alabama 35502-3431
Telephone: (205) 221-0686
Fax: (205) 221-7721
Email: stephenb@mcgehee.org

Executive Summary

McGehee Engineering Corporation performed a biological habitat assessment survey for habitat and the possible presence of the species federally listed as endangered, threatened, or of concern in March and April of 2013. The study was conducted on the proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project area. The proposed project area consists of approximately 421 acres located in Sections 34 & 35, Township 16 South, and Range 5 West, and Sections 2 & 3, Township 17 South, and Range 5 West all in Jefferson County.

The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project area consists of upland area, with some intermittent and ephemeral drains, a few small low grade wetlands and a shallow disconnected upland pond. Porter Road, power line and gas line routes, and gas well pad roads allow easy access to most of the proposed project area, with the exception being the eastern area around Village Creek. Village Creek is not in the proposed boundary and or the study area and has a 100 foot buffer between the boundary and the study area. The upland area has been disturbed through road development, gas and power line routes, silvaculture and a family dwelling. The upland areas, upon which the roads, power and gas line routes and pond sits, has gently inclined slopes that are vegetated with upland grasses and herbs, pines, various hardwoods and some nonnative invasive species. The steeply inclined slopes of the intermittent and ephemeral drains are vegetated with hardwoods, some pines with some invasive species. The wetlands are primarily vegetated with facultative tree species, with some facultative wetland and obligate tree species, and many obligate and facultative wetland herbaceous species. However, the wetlands are more of an emergent linear type wetland created from the topography alternations or located in the bottom of steep hollows. The proposed project is located in a heavily mined area with current mining west and north of the proposed boundary. The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project boundary lays either side of Porter Road and southwest of Miller Steam Plant.

The biological habitat assessment survey focused on the Indiana bat, as can be found in Table 2.1. Other T, E & C species listed in Jefferson County along with the Bald Eagle, Wood Stork and the Red Cockaded Woodpecker were studied in previous surveys (McGehee 2013).

Table of Contents

Figures

Tables

Appendices

Chapter 1. Proposed Project Review

1.1 Introduction

McGehee Engineering Corporation performed a biological habitat assessment survey for habitat and the possible presence of the species federally listed as endangered, threatened, or of concern on March and April of 2013. The study was conducted on the proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project area. The proposed project area consists of approximately 421 acres located in Sections 34 & 35, Township 16 South, Range 5 West, Sections 2 & 3, Township 17 South, Range 5 West, all on the Sylvan Springs, Alabama U.S.G.S Quadrangle as found in Jefferson County, Alabama. The proposed site location is shown on the attached 2000' scale project area map attachment "B".

The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project area consists of upland area, some intermittent and ephemeral drains, a few wetlands and a shallow disconnected upland pond. Porter Road, power line and gas line routes, and gas well pad roads allow easy access to most of the proposed project area, with the exception being the eastern area around Village Creek. Village Creek is not in the proposed boundary and or the study area and has a 100 foot buffer between the boundary and the study area. The upland area has been disturbed through road development, gas and power line routes, silvaculture and a family dwelling. The upland areas, upon which the roads, power and gas line routes and pond sits, has gently inclined slopes that are vegetated with upland grasses and herbs, pines, many hardwoods and some nonnative invasive species. The steeply inclined slopes of the intermittent and ephemeral drains are vegetated with hardwoods, some pines with some invasive species. The wetlands are primarily vegetated with facultative tree species, with some facultative wetland and obligate tree species, and many obligate and facultative wetland herbaceous species. The proposed project is located in a heavily mined area with current mining west and north of the proposed boundary. The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project boundary lays east and west of Porter Road and southwest of Miller Steam Plant.

Active and previous mining operations surround the proposed project boundary.

1.2 Project Location

WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project consists of approximately 421 acres and is located in Sections 34 & 35, Township 16 South, and Range 5 West, and Sections 2 & 3, Township 17 South, and Range 5 West as located in Jefferson County, Alabama on the Sylvan Springs, Alabama U.S.G.S Quadrangle. The proposed site location is shown below on the attached project area map Figure 1. (Appendix "A")

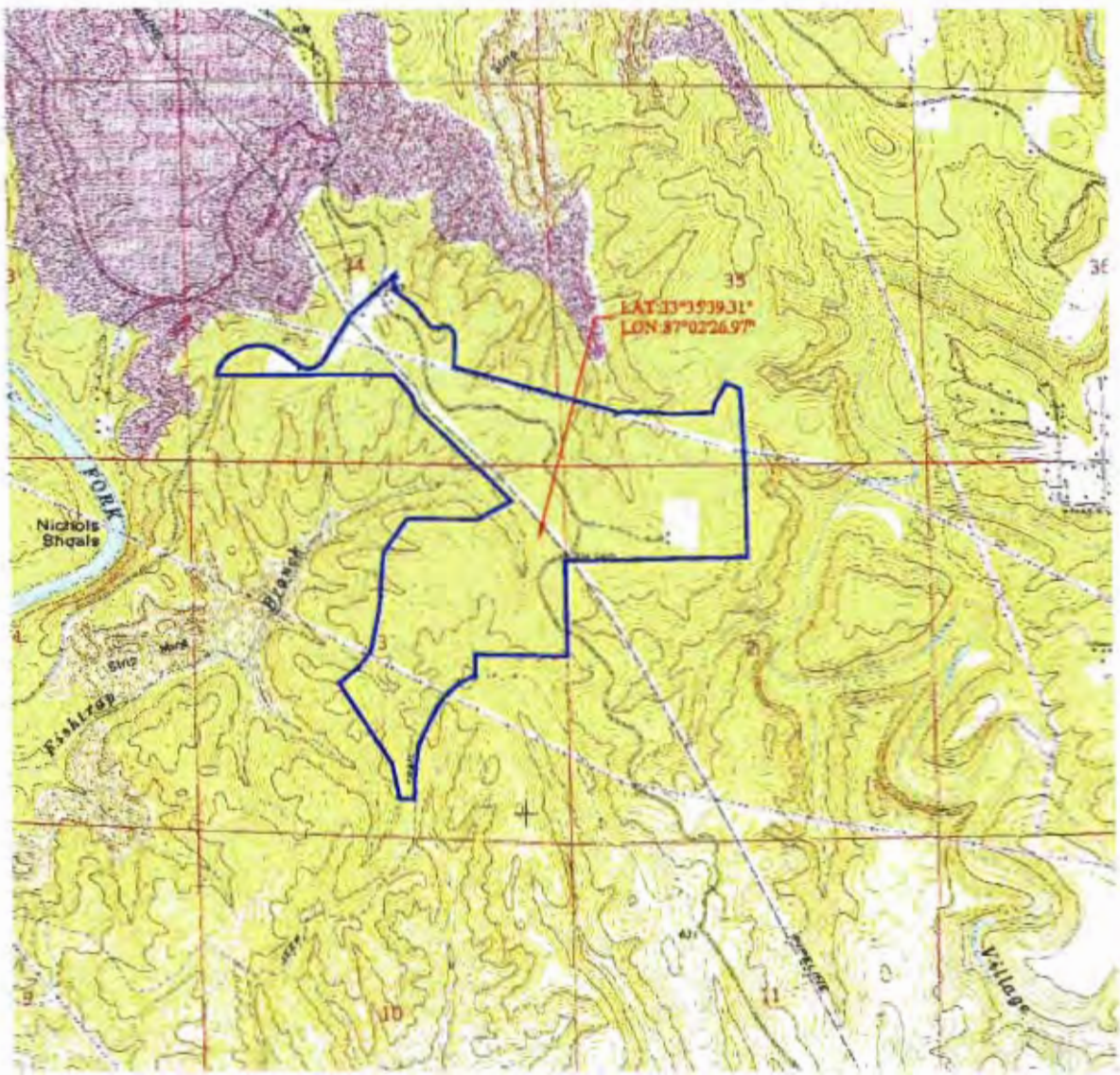

Figure 1. Project Area Map. *(not to scale)*

Chapter 2. Threatened & Endangered Species List

2.1 Species Identification

The U.S. Fish and Wildlife Service (USFWS) threatened, endangered, and candidate species list for Jefferson County was reviewed by a qualified biologist in order to determine species potentially occurring in the project vicinity (Table 2.1). In addition, the Alabama Natural Heritage Section Database that contains numerous records of sensitive species in Alabama was queried to provide a list of special status species and habitats that may have been documented as occurring within the project area and/or the project vicinity.

Table 2.1. Indiana Bat Specie for Jefferson County.

Common Name *Scientific Name*	**Status**	**General Habitat**
Indiana Bat *Myotis sodalis*	*E*	Lives in a variety of summer habitats including floodplain and riparian zones with upland area nearby for roosting in > 5 inch diameter trees with exfoliating bark and Limestone caves and sometimes mines for winter hibernation and mating

Key to codes on list:

- **E** – Endangered
- **T** - Threatened
- **BGEPA** - Bald & Golden Eagle
- **C** - Candidate Species
- **(P)** - Possible Occurrence

Chapter 3. Methodology

3.1 Methodology

The subject property was surveyed by McGehee Engineering Corp. (MEC) for the occurrence and potential for occurrence for species protected or listed by the U.S. Fish and Wildlife Service (USFWS), based on known habitat preferences and geographical distribution. The principal surveyor for this site was Biologist Wes Lamon of McGehee Engineering Corp.

The study site was surveyed by completely traversing the site in a zigzag pattern at approximately 20 meters intervals. Survey conditions are described in Table 3.1. Prior to performing the field reconnaissance, MEC performed a review of aerial photographs of the project site and a pedestrian survey was conducted by MEC biologist to identify vegetation communities and land uses, perform general habitat assessment for plants and animals; assess the potential for nesting or roosting activity by birds and/or bats within the general study area. This survey focuses on the Indiana bats. All other species were studied in previous surveys.

Table 3.1. Survey Conditions

Date: March 5th, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
39°	5-12	50%

Date: March 27th, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
55°	0-4	0%

Date: April 12th, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
70°	1-5	0%

Date: April 18th, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
70°	7-12	70%

Date: April 22nd, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
75°	3-10	30%

Date: April 23rd, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
64°	6-12	80%

Date: April 25th, 2013

Temperature (°F)	Wind (MPH)	Sky Cover %
77°	2-6	20%

As part of the field reconnaissance, MEC also conducted a delineation of potentially jurisdictional wetlands and waters of the U.S. as it relates to Section 404 of the Clean Water Act in accordance to the 1987 *"Corps of Engineers Wetlands Delineation Manual":* Wetlands Research Program Technical Report Y-87-1.

USGS Quadrangle Map	Sylvan Springs, Alabama USGS Quad Revised 1982
National Wetlands Inventory Map	Sylvan Springs, Alabama NWI Quad developed 1981
SCS Soil Survey	Jefferson County NRCS Web Survey
Aerial Photos	Google Image Dated: 09-04-2010
Plant Database	United States Department of Agriculture / Natural Resources Conservation Services Web Database
FEMA Flood Map	Fedcral Emergency Management DFIRM Database FIRMettes Jefferson County

Chapter 4. Environmental Setting

4.1 General Habitat Description

The proposed WB Mining, LLC – Fishtrap No. 2 Revision R-3 project area is located in Sylvan Springs, AL and lays east and west of Porter Road and southwest of Miller Steam Plant. Portions of the property consist of existing road beds, power and gas line routes, areas of recent silvaculture and a family dwelling. Uses of the area have been natural gas extraction, power transmission and silvaculture. The proposed project area is disturbed in upland areas and undisturbed in drain areas. These areas are vegetated with pines, hardwoods, native and nonnative invasive herbs, shrubs and vines. The project site of approximately 421 acres mostly consists of the following vegetation species:

Tree Stratum

American Beech *(Fagus grandifolia)*
American Hornbeam *(Carpinus caroliniana)*
Bear Oak *(Quercus ilicifolia)*
Black Cherry *(Prunus serotina)*
Black Gum *(Nyssa sylratica)*
Black Oak *(Quercus velutina)*
Black Willow *(Salix nigra)*
Chestnut Oak *(Quercus prinus)*
Eastern Hophornbeam *(Ostraya virginiana)*
Eastern Red Cedar *(Juniperus virginiana)*
Eastern Redbud *(Cercis canadensis)*
Loblolly Pine *(Pinus taeda)*
Mockernut Hickory *(Carya tomentosa)*
Post Oak *(Quercus stellata)*
Red Maple *(Acer rubrum)*
Sassafras *(Sassafras albidum)*
Scarlet Oak *(Quercus coccinea)*
Shagbark Hickory *(Carya ovata)*
Slippery Elm *(Ulmus rubra)*
Sourwood *(Oxydendrum arboreum)*
Southern Red Oak *(Quercus falcata)*
Sugar Maple *(Acer sacchrum)*
Sweet Gum *(Liquidambar styraciflua)*
Sycamore *(Platanus occidentalis)*
Turkey Oak *(Quercus laevis)*
Umbrella Magnolia *(Magnolia tripetala)*
Virginia Pine *(Pinus virginiana)*
Water Oak *(Quercus nigra)*

White Oak *(Quercus alba)*
Yellow Poplar *(Liriodendron tulipifera)*

Sapling Stratum

American Beech *(Fagus grandifolia)*
American Holly *(Ilex opaca)*
American Hornbeam *(Carpinus caroliniana)*
Bear Oak *(Quercus ilicifolia)*
Black Cherry *(Prunus serotina)*
Black Oak *(Quercus velutina)*
Black Willow *(Salix nigra)*
Chestnut Oak *(Quercus prinus)*
Eastern Hophornbeam *(Ostraya virginiana)*
Eastern Red Cedar *(Juniperus virginiana)*
Eastern Redbud *(Cercis canadensis)*
Flowering Dogwood *(Cornus florida)*
Loblolly Pine *(Pinus taeda)*
Mockernut Hickory *(Carya tomentosa)*
Post Oak *(Quercus stellata)*
Red Maple *(Acer rubrum)*
Sassafras *(Sassafras albidum)*
Scarlet Oak *(Quercus coccinea)*
Shagbark Hickory *(Carya ovata)*
Slippery Elm *(Ulmus rubra)*
Sourwood *(Oxydendrum arboreum)*
Southern Red Oak *(Quercus falcata)*
Sugar Maple *(Acer sacchrum)*
Sweet Gum *(Liquidambar styraciflua)*
Sycamore *(Platanus occidentalis)*
Turkey Oak *(Quercus laevis)*
Umbrella Magnolia *(Magnolia tripetala)*
Virginia Pine *(Pinus virginiana)*
Water Oak *(Quercus nigra)*
White Oak *(Quercus alba)*
Yellow Poplar *(Liriodendron tulipifera)*

Shrub Stratum

American Beech *(Fagus grandifolia)*
American Holly *(Ilex opaca)*
American Hornbeam *(Carpinus caroliniana)*
Bear Oak *(Quercus ilicifolia)*
Black Cherry *(Prunus serotina)*

Black Oak *(Quercus velutina)*
Black Willow *(Salix nigra)*
Chestnut Oak *(Quercus prinus)*
Chinese Privet *(Ligustrum sinense)*
Eastern Hophornbeam *(Ostraya virginiana)*
Eastern Red Cedar *(Juniperus virginiana)*
Eastern Redbud *(Cercis canadensis)*
Flowering Dogwood *(Cornus florida)*
Loblolly Pine *(Pinus taeda)*
Mimosa *(Albizia julibrissin)*
Mockernut Hickory *(Carya tomentosa)*
Oakleaf Hydrangea *(Hydrangea quercifolia)*
Post Oak *(Quercus stellata)*
Red Maple *(Acer rubrum)*
Sassafras *(Sassafras albidum)*
Scarlet Oak *(Quercus coccinea)*
Smooth Sumac *(Rhus glabra)*
Sourwood *(Oxydendrum arboreum)*
Southern Red Oak *(Quercus falcata)*
Sugar Maple *(Acer sacchrum)*
Sweet Gum *(Liquidambar styraciflua)*
Tree of Heaven *(Ailanthus altissima)*
Turkey Oak *(Quercus laevis)*
Umbrella Magnolia *(Magnolia tripetala)*
Virginia Pine *(Pinus virginiana)*
Water Oak *(Quercus nigra)*
White Oak *(Quercus alba)*
Yellow Poplar *(Liriodendron tulipifera)*

Herbaceous Stratum

Annual Ragweed *(Ambrosia artemisiifolia)*
Big Bluestem *(Andropogon gerardii)*
Blackberry *(Rubus betulifolius)*
Blackeyed Susan *(Rudbeckia Hirta)*
Blue Phlox *(Phlox divaricata)*
Bluestem Broom sedge *(Andropogon virginicus)*
Bonset *(Brickellia eupatorioides)*
Canada Golden Rod *(Solidago altissima)*
Christmas Fern *(Polystichum acrostichoides)*
Common Milkweed *(Asclepias syriaca)*
Coreopsis *(Coreopsis auriculata)*
Cut Leaf Blackberry *(Rubus laciniatus)*
Daisy Fleabane *Rigeron philidelphicus)*
Downy Phlox *(Phlox pilosa)*

Dwarf Cinquefoil *(Potentilla canadensis)*
Early Spiderwort *(Tradescantia virginiana)*
Fire Pink or Scarlet Catchfly *(Silene virginica)*
Foxtail Meadow grass *(Alopecurus pratensis)*
Golden Ragwort (*Sencio aureus)*
Hawkweed *(Rigia biflora)*
Horseweed *(Conyza canadensis)*
Indian grass *(Sorghastrum nutans)*
May Apple *(Podophyllum peltatum)*
Meadow Fescue *(Festuca pratensis)*
Mountain or Pink Phlox *(Phlox ovata)*
Muhly Grass *(Muhlenbergia schreberi)*
Nepalese Brown Top *(Microstegium vimineum) (Eulalia viminea)*
Netted Chain fern *(Woodwardia aerolata)*
Northern Dewberry *(Rubus flagellaris)*
Oxalis *(Oxalis violaceae)*
Poverty Grass *(Danthonia spichata)*
Shooting Star *(Dodecatheon meadia)*
Soft Rush *(Juncus effusus)*
Solomon's Seal *(Polygonatum biflorum)*
Southern Dewberry *(Rubus trivialis)*
Southern Maiden Hair fern *(Adiantum capillus-veneris)*
Tall Fescue *(Festuca arundinacea)*
Tall Spiderwort *(Tradescantia ohienis)*
Tree of Heaven *(Ailanthus altissima)*
Yankee weed *(Eupatorium compostifolium)*

Woody Vine Stratum

Eastern Poison Ivy *(Toxicodendron radicans)*
Honeysuckle *(Lonicera x bella)*
Japanese Honeysuckle *(Lonicera japonica)*
Muscadine *(Vitis rotundifolia)*
Roundleaf Green Briar *(Smilax rotundifolia)*
Saw Briar *(Smilax bona-nox)*
Virginia Creeper *(Parthenocissus quinquefolia)*
Yellow Jessamine or Carolina Jasmine *(Gelsemium sempervirens)*

The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project area consists of upland area, many intermittent and ephemeral drains, 4 wetlands and a shallow disconnected upland pond. Porter Road, power line and gas line routes, and gas well pad roads allow easy access to most of the proposed project area, with the exception being the eastern area around Village Creek. Village Creek is not is the proposed boundary. The upland area has been disturbed through road development, gas and power line routes, silvaculture and a family dwelling. The upland areas, upon which the roads, power and gas line routes and pond sits, has gently inclined slopes that are vegetated with upland grasses and herbs, pines, many hardwoods and some nonnative invasive species. The steeply inclined slopes of the intermittent and ephemeral drains are vegetated with hardwoods, some pines, many native herbs and wildflowers and some invasive species. The wetlands are primarily vegetated with facultative tree species, with some facultative wetland and obligate tree species, and many obligate and facultative wetland herbaceous species. Most of Porter road and the gas well roads are vegetated with 10 to 15 year old Loblolly pine *(Pinus taeda)* and slightly younger Virginia Pines *(P. virginiana)*. There is also a thin growth of young hardwoods, including White oak *(Quercus alba)*, Chestnut oak *(Q. prinus)*, Sweetgums *(Liquidambar styraciflua)*, Sourwood *(Oxydendrum arboreum)* and Yellow Poplar *(Liriodendron tulipifera)*, and a few nonnative invasive plants including Chinese Privet *(Ligustrum sinense)*, Mimosa *(Albizia julibrissin)*, Tree of Heaven *(Ailanthus altissima)* and Japanese Honeysuckle *(Lonicera japonica)*. The drains within the proposed boundary are steep and natural. The vegetation is predominantly hardwoods including the above mentioned hardwoods along with American Beech *(Fagus grandifolia)*, Flowering Dogwood *(Cornus florida)*, American Hophornbeam *(Ostrya virginiana)*, American Hornbeam *(Carpinus caroliniana)*, Red Maple *(Acer rubrum)*, Sugar Maple *(A. saccharum)*, Umbrella Magnolia *(Magnolia tripetala)* and Bear Oak *(Quercus ilicifolia)*. The shrub story is thick with Oakleaf Hydrangea *(Hydrangea quercifolia)*, Red Buckeye *(Aesculus pavia)* and Bottlebrush Buckeye *(A. Parviflora)*. There are also many native wildflowers, herbs and ferns along these banks including Christmas fern *(Polystichum acrostichoides)*, May Apple *(Podophyllum peltatum)*, Fire Pink *(Silene virginica)*, Blue Phlox *(Phlox divaricata)*, Golden Ragwort *(Sencio aureus)*, Shooting Star *(Dodecatheon meadia)*, Solomon's Seal *(Polygonatum biflorum)*, Coreopsis *(Coreopsis auriculata)*, Daisy Fleabane *(Rigeron philidelphicus)*, Hawkweed *(Rigeron biflora)*, Mountain Phlox *(Phlox ovata)*, Early Spiderwort *(Tradescantia virginiana)* and Tall Spiderwort *(T. ohienis)*. Wetlands were found within the proposed boundary; the first is at 12A and is the creation of a shallow pond. The second is at 16A and is at the headwaters of a drain. Many intermittent and ephemeral streams were located within the proposed boundary and are listed in detail in a report to ACOE. The proposed project is located in a heavily mined area with current mining west and north of the proposed boundary. The proposed WB Mining, LLC – Fishtrap No. 2 Mine -- Revision R-3 project boundary lays east and west of Porter Road and southwest of Miller Steam Plant.

There are two primary soil groups within the project. The first is Montevallo-Nauvoo association, steep that are well drained. The other is Nauvoo fine sandy loam, 8 to 15 percent slopes which are well drained. All soil types are partially hydric. The soils identified in the field matched the USDA Soil data profile therefore a more detailed description of the soil as well as the soil maps can be found in Appendix C.

Chapter 5. Habitat Study Results

5.1 Terrestrial and Terrestrial Habitat Species

a. **Indiana Bat** *(Myotis sodalis)* – Potential habitat for this species exists for summer roosting within the project boundary. However, there are no limestone caves or abandoned underground mines on or adjacent to this project site. There are no perennial waterways on this project site.

5.1.1 Summary

Potential summer roost habitat for the Indiana bats exists within the proposed project boundary. There are no perennial waters with riparian buffers. There are upland areas with exfoliating trees >5 inches in diameter within the proposed project boundary. No caves or old mines of Limestone or any formation were discovered within the proposed boundary for winter hibernacula. No evidence was found or observed for the presence or possible presence of the Indiana bat. USFWS and ADCNR were contacted about this potential summer habitat and McGehee Engineering was directed to the 2010, 2011, and 2012 annual Final Reports of bat surveys by M. Keith Hudson, for the state of Alabama. The most recent of these, the 2012 Alabama Department of Conservation and Natural Resource's study records indicate that this bat is present only in low numbers in and around caves in northern Alabama. The absence of any caves or perennial waterways within the project boundary makes this species' presence highly unlikely. No other studies are recommended.

Chapter 6. References

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Chapter 7. Signatures of Preparers

Prepared by:

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Biologist

Reviewed by:

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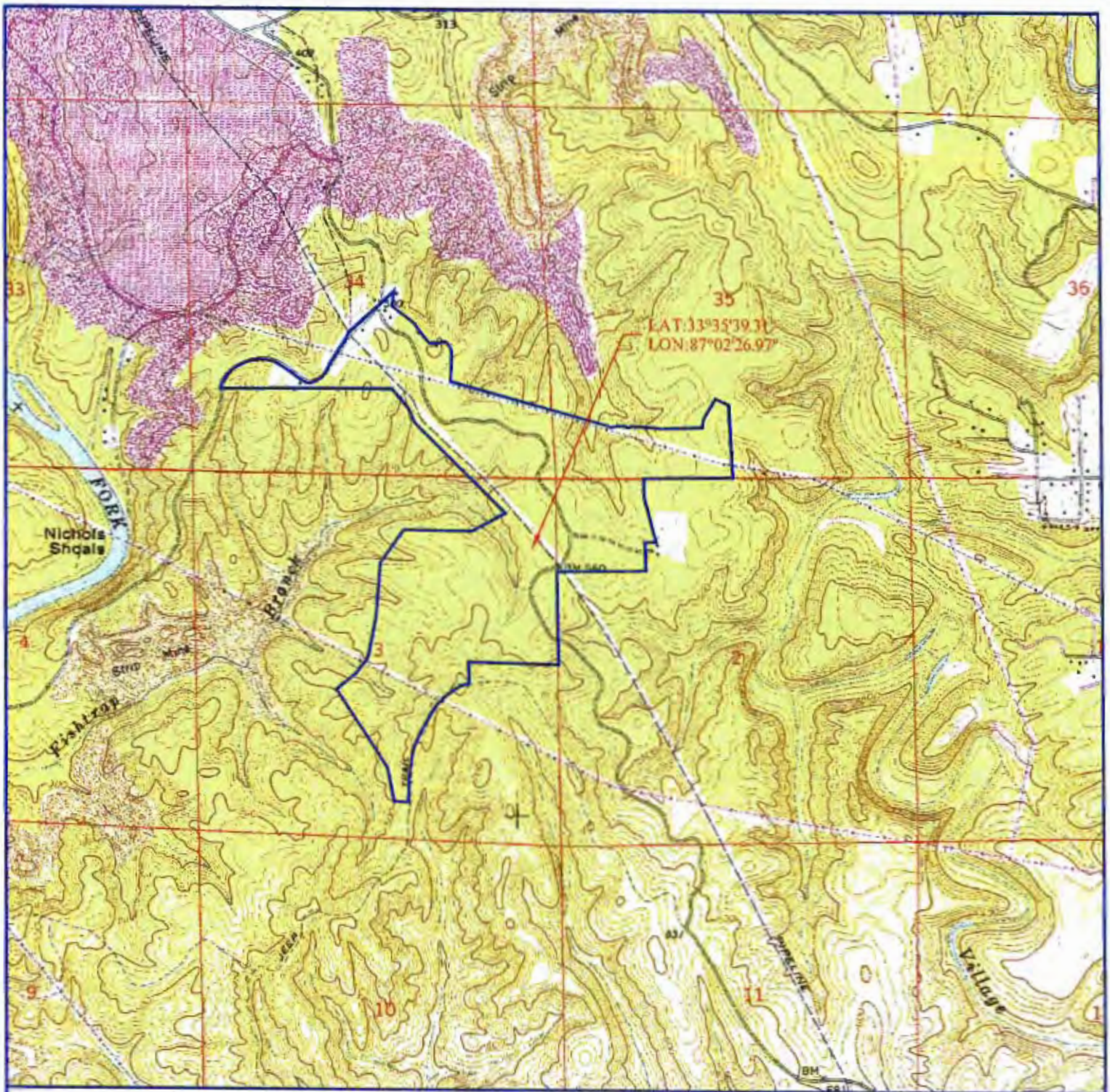
Wetland Specialist

Appendix A — Project Area Map



SCALE: 1" = 2000'
March 18th, 2013

W.B. MINING, LLC.
FISHTRAP MINE NO. 2
(APPROXIMATELY 380 ACRES TOTAL)

N
W E
S

PROJECT AREA MAP

SECTIONS 34 & 35, TOWNSHIP 16 SOUTH, RANGE 5 WEST,
SECTIONS 2 & 3, TOWNSHIP 17 SOUTH, RANGE 5 WEST,
ALL IN JEFFERSON COUNTY, ALABAMA
AS FOUND ON THE SYLVAN SPRINGS, ALABAMA USGS QUAD.

MEC
mcgehee engineering corp
(205) 221-0880

REVISION R-3

Latitude: 33°35'39" N
Longitude: 87°02'27" W

Appendix B — Photographic Log

McGehee Engineering

Photographic Log

Client Name:	**Site Location:** *Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.	
Date:	*03-05-13*
Photo No.	*P3050444*
Point No.	*005*

Description:

This is a view of an upland road at point 5.

Dominant Vegetation:

- *Pinus taeda*
- *Pinus virginiana*
- *Andropogon virginicus*
- *Festuca pratensis*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:** *Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.	
Date:	*03-05-13*
Photo No.	*P3050446*
Point No.	*004*

Description:

This is a view of the vegetation at point 5.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P3050450***	
Point No.	***06***	

Description:

This is a view an upland road at point 6.

Dominant Vegetation:

- *Pinus taeda*
- *Pinus virginiana*
- *Andropogon virginicus*
- *Festuca pratensis*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P3050455***	
Point No.	***06***	

Description:

This is a view of the vegetation at point 6.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P3050474***	
Point No.	***008***	

Description:

This is a view of the intermittent drain at point 8.

Dominant Vegetation:

- *Pinus taeda*
- *Fagus grandifolia*
- *Quercus alba*
- *Liquidambar styraciflua*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P30504***	
Point No.	***008***	

Description:

This is a downstream view of the intermittent drain at point 8.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P3050470***	
Point No.	***08A***	

Description:

This is a view of the ephemeral drain at point 8A. This is the location of the Int/Eph break.

Dominant Vegetation:

- *Fagus grandifolia*
- *Pinus taeda*
- *Quercus alba*
- *Quercus prinus*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-05-13***	
Photo No.	***P3050471***	
Point No.	***08A***	

Description:

This is a view of the vegetation at point 8A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-08-13***	
Photo No.	***P3050486***	
Point No.	***08B***	

Description:

This is a view of the beginning of the ephemeral drain at point 8B.

Dominant Vegetation:

- *Pinus taeda*
- *Fagus grandifolia*
- *Pinus virginiana*
- *Ostrya virginiana*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-08-13***	
Photo No.	***P3050485***	
Point No.	***08B***	

Description:

This is a view of the vegetation at point 8B.

Dominant Vegetation:

Same as above.

McGehee Engineering — **Photographic Log**

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050466*	
Point No.	*009*	

Description:

This is a view of the ephemeral drain at point 9.

Dominant Vegetation:

- *Fagus grandifolia*
- *Quercus alba*
- *Quercus prinus*
- *Pinus taeda*

McGehee Engineering — **Photographic Log**

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050468*	
Point No.	*009*	

Description:

This is a view of the vegetation at point 9.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050463*	
Point No.	*09A*	

Description:

This is a view of the beginning of the ephemeral drain at point 9A.

Dominant Vegetation:

- *Fagus grandifolia*
- *Carpinus caroliniana*
- *Pinus taeda*
- *Quercus alba*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050464*	
Point No.	*09A*	

Description:

This is a view of the vegetation at point 9A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050487*	
Point No.	*010*	

Description:

This is a view of Porter Road and vegetation at point 10.

Dominant Vegetation:

- *Pinus taeda*
- *Pinus virginiana*
- *Quercus alba*
- *Quercus stellata*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050488*	
Point No.	*010*	

Description:

This is a view of Porter Road and vegetation at point 10.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050496*	
Point No.	*011*	

Description:

This is a view of the Porter Road and vegetation at point 11.

Dominant Vegetation:

- *Pinus taeda*
- *Pinus virginiana*
- *Quercus alba*
- *Quercus stellata*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*03-05-13*	
Photo No.	*P3050498*	
Point No.	*011*	

Description:

This is a view of a power line cut intersecting Porter Road at point 11.

Dominant Vegetation:

- *Pinus taeda*
- *Pinus virginiana*
- *Quercus alba*
- *Andropogon virginicus*
- *Ligustrum sinense*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-12-13*	
Photo No.	*P4120099*	
Point No.	*012*	

Description:

This is a view of the intermittent drain at point 12 below the vegetation

Dominant Vegetation:

- *Pinus taeda*
- *Acer rubrum*
- *Liriodendron tulipifera*
- *Lonicera japonica*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-12-13*	
Photo No.	*P4120094*	
Point No.	*012*	

Description:

This is a view of the vegetation at point 12.

Dominant Vegetation:

Same as above.

McGehee Engineering — Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-12-13*	
Photo No.	*P4120079*	
Point No.	*12A*	

Description:

This is a view of the wetland at point 12A.

Dominant Vegetation:

- *Scirpus cyperinus*
- *Pinus taeda*
- *Acer rubrum*
- *Andropogon virginicus*

McGehee Engineering — Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-12-13*	
Photo No.	*P4120083*	
Point No.	*12A*	

Description:

This is another view of the wetland at point 12A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-12-13***	
Photo No.	***P4120086***	
Point No.	***12B***	

Description:

This is a view of the ephemeral drain at point 12B. This picture was taken within 24 hours of a 1" rain event.

Dominant Vegetation:

- *Pinus taeda*
- *Ligustrum sinense*
- *Rubus betulifolius*
- *Lonicera japonica*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-12-13***	
Photo No.	***P4120088***	
Point No.	***12B***	

Description:

This is a view of the vegetation along the ephemeral drain at point 12B.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-18-13***	
Photo No.	***P4120086***	
Point No.	***12C***	

Description:

This is a view of the beginning of the ephemeral drain at point 12C.

Dominant Vegetation:

- *Albizia julibrissin*
- *Ligustrum sinense*
- *Rubus betulifolius*
- *Lonicera japonica*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-18-13***	
Photo No.	***P4120088***	
Point No.	***12C***	

Description:

This is also view of the ephemeral drain at point 12C.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-27-13***	
Photo No.	***P3270171***	
Point No.	***015***	

Description:

This is a view of the intermittent drain at point 15.

Dominant Vegetation:

- *Pinus taeda*
- *Liriodendron tulipifera*
- *Acer rubrum*
- *Lonicera japonica*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-27-13***	
Photo No.	***P3270174***	
Point No.	***015***	

Description:

This is a view of the vegetation at point 15.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-27-13***	
Photo No.	***P3270175***	
Point No.	***15A***	

Description:

This is a view of the beginning of the intermittent drain at point 15A.

Dominant Vegetation:

- *Liquidambar styraciflua*
- *Lonicera japonica*
- *Rubus betulifolius*
- *Pinus taeda*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***03-27-13***	
Photo No.	***3270178***	
Point No.	***15A***	

Description:

This is a view of the vegetation at point 15A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-18-13*	
Photo No.	*P4180124*	
Point No.	*016*	

Description:

This is a view of the intermittent drain at point 16.

Dominant Vegetation:

- *Liquidambar styraciflua*
- *Ostrya virginiana*
- *Liriodendron tulipifera*
- *Aesculus pavia*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-18-13*	
Photo No.	*P4180120*	
Point No.	*016*	

Description:

This is a view of the vegetation at point 16.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-18-13***	
Photo No.	***P4180135***	
Point No.	***16A***	

Description:

This is a view of the wetland at point 16A.

Dominant Vegetation:

- *Juncus effusus*
- *Woodwardia aerolata*
- *Acer rubrum*
- *Salix nigra*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-18-13***	
Photo No.	***P4180128***	
Point No.	***16A***	

Description:

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-22-13*	
Photo No.	*P4220218*	
Point No.	*17A*	

Description:

This is a view of the beginning of the intermittent drain at point 17A.

Dominant Vegetation:

- *Liquidambar styraciflua*
- *Rubus betulifolius*
- *Ligustrum sinense*
- *Liriodendron tulipifera*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-22-13*	
Photo No.	*P4220215*	
Point No.	*17A*	

Description:

This is a view of the vegetation at point 17A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-22-13***	
Photo No.	***P4220224***	
Point No.	***021***	

Description:

This is a view of the intermittent drain at point 21.

Dominant Vegetation:

- *Ligustrum sinense*
- *Aesculus pavia*
- *Arundinaria gigantea*
- *Acer rubrum*

McGehee Engineering

Photographic Log

Client Name:	**Site Location:**	***Fishtrap Mine No. 2 R-3***
W.B. Mining, LLC.		
Date:	***04-22-13***	
Photo No.	***P4220226***	
Point No.	***021***	

Description:

This is a view of vegetation at point 21.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-23-13*	
Photo No.	*P4230002*	
Point No.	*21A*	

Description:

This is a view of the beginning of the intermittent drain at point 21A.

Dominant Vegetation:

- *Pinus taeda*
- *Liriodendron tulipifera*
- *Acer rubrum*
- *Rubus betulifolius*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	*Fishtrap Mine No. 2 R-3*
W.B. Mining, LLC.		
Date:	*04-23-13*	
Photo No.	*P4230011*	
Point No.	*21A*	

Description:

This is a view of the vegetation at point 21A.

Dominant Vegetation:

Same as above.

McGehee Engineering

Photographic Log

Client Name:	Site Location:	Fishtrap Mine No. 2 R-3
W.B. Mining, LLC.		
Date:	*04-25-13*	
Photo No.	*P4250001*	
Point No.	*024*	

Description:

This is a view of a dwelling and vegetation at point 24.

Dominant Vegetation:

- *Acer rubrum*
- *Pinus taeda*
- *Ligustrum sinense*
- *Festuca pratensis*

McGehee Engineering

Photographic Log

Client Name:	Site Location:	Fishtrap Mine No. 2 R-3
W.B. Mining, LLC.		
Date:	*04-25-13*	
Photo No.	*P4250002*	
Point No.	*024*	

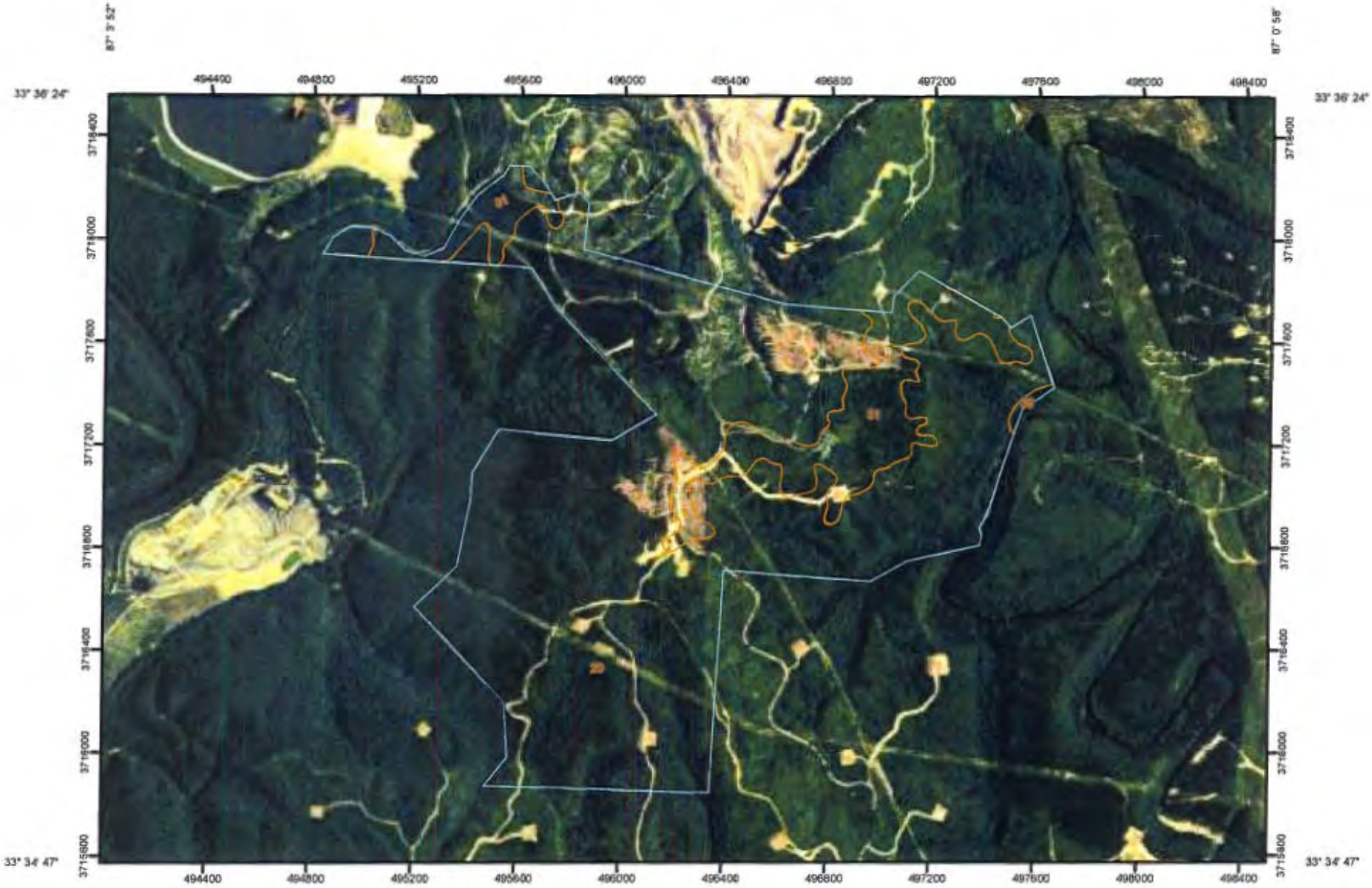
Description:

This is a view of a dwelling and vegetation at point 24.

Dominant Vegetation:

Same as above.

Appendix C — Soil Map


87° 3' 52"
87° 0' 58"
33° 36' 24"
33° 34' 47"
494400
494800
495200
495600
496000
496400
496800
497200
497600
498000
498400
3718400
3718000
3717600
3717200
3716800
3716400
3716000
3715600
N
Map Scale: 1:21,400 if printed on A size (8.5" x 11") sheet.
Meters
0
250
500
1,000
1,500
Feet
0
1,000
2,000
4,000
6,000

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

- Gully
- Short Steep Slope
- Other

MAP INFORMATION

Map Scale: 1:21,400 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, Alabama
Survey Area Data: Version 5, Mar 11, 2008

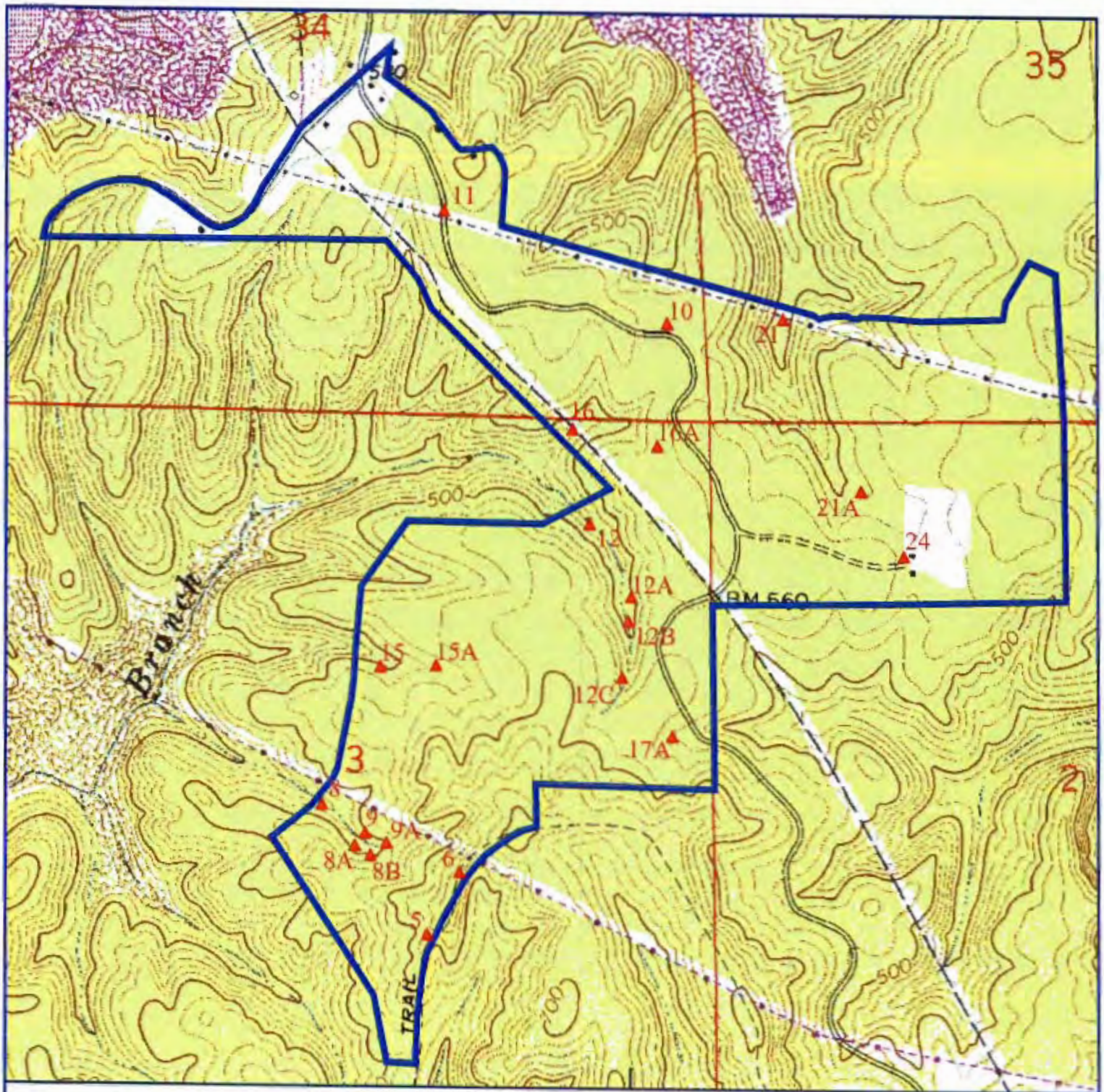
Date(s) aerial images were photographed: 6/23/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson County, Alabama (AL073)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
29	Montevallo-Nauvoo association, steep	635.2	85.4%
31	Nauvoo fine sandy loam, 8 to 15 percent slopes	106.7	14.3%
39	Sullivan-State complex, 0 to 2 percent slopes	1.9	0.3%
Totals for Area of Interest		**743.9**	**100.0%**

Appendix D — Photographic Log Point Map



SCALE: 1" = 1000'
April 26th, 2013

W.B. MINING, LLC.
FISHTRAP MINE NO. 2
(APPROXIMATELY 421 ACRES TOTAL)

N
W E
S

PHOTOGRAPHIC LOG POINT MAP

SECTIONS 34 & 35, TOWNSHIP 16 SOUTH, RANGE 5 WEST,
SECTIONS 2 & 3, TOWNSHIP 17 SOUTH, RANGE 5 WEST,
ALL IN JEFFERSON COUNTY, ALABAMA
AS FOUND ON THE SYLVAN SPRINGS, ALABAMA USGS QUAD.

MEC
mcgehee engineering corp

REVISION R-3

Latitude: 33°35'39" N
Longitude: 87°02'27" W