

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

Part II - Environmental Resources Information

A. Fish, Wildlife and Related Environmental Values

1. Describe the measures to be taken, using the best technology currently available to minimize disturbances and adverse impacts to fish and wildlife and achieve enhancement of this resource where practicable within the proposed permit area. [780.18(b), 816.97(a)]

Sediment ponds will be used to prevent suspended solids and metals from entering nearby watersheds. Other siltation controls such as filter dams and silt fences will be used on occasion when necessary. The area will be promptly reclaimed with diverse species to provide a natural habitat for wildlife closely resembling the premining land use.

2. Describe in detail the measures to be taken to restore or enhance, or steps to be taken to avoid disturbance of habitats or unusually high value for fish and wildlife located within the proposed permit area. [780.18(b), 816.97(d)(2)]

There are no unusually high value habitats within the proposed permit area.

See Attachment II.-A.-2.

3. Are there any wetland areas such as streams, lakes, marshes, etc. located in or adjacent to the proposed permit area which will be disturbed by the mining activities? [780.18(b), 816.97 (d)(3 & 4)] () Yes. (X) No.

If yes, briefly describe the feature(s), it's location and the extent of the proposed disturbance. Describe in detail measures to be taken to restore the area.

If a stream channel diversion is proposed, describe in detail (including maps, diagrams or cross-sections, if necessary) how the provisions of 816.44(d) will be met. Include a copy of all other necessary State or Federal approvals.

None Proposed.

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Addendum to the Reclamation Plan
Enhancement and Protection of Fish and Wildlife

(1) Areas of Special Concern

(a) Wetlands:

1. List any wetlands, ponds, lakes, streams, rivers, etc. that have been identified by the Department of Conservation and Natural resources (DCNR) or U.S. Fish and Wildlife Service (USFWS) as area of special concern.

No wetlands, ponds, lakes, streams, rivers, etc. have been identified by the Department of Conservation and Natural resources (DCNR) or U.S. Fish and Wildlife Service (USFWS) as area of special concern.

2. Identify and direct or indirect impacts which could occur as a result of the proposed mine.

If mining and reclamation operations are successfully completed, there should be no direct impacts on areas of special concern.

Indirect impacts as a result of this mining operation, will be limited to the temporary changes in the quantity of water entering the receiving streams during the construction of diversions and sediment basins, sediment load during the construction of incidental areas such as diversions, sediment basins, haulroads, etc. and the temporary destruction of small insignificant and undected water holding depressions during mining operations.

3. List the measures to be taken to avoid, protect, or minimize impacts.

All required buffer zones or setbacks, as set forth in the regulations, will be honored to avoid, protect, and minimize impacts of areas of special concern. Sediment basins will be utilized to maintain water quality standards entering the receiving stream. Diversion ditches will be constructed to control and direct all disturbed runoff through approved sediment basins. Hay dams, silt fences and rock check dams will be used to control minimal offsite drainage, such as haulroads, out slopes of sediment basins, etc., not entering sediment basins. Disturbed areas will be regraded and revegetated in a timely manner, as outlined in Part IV of the permit, to provide fish and wildlife habitat closely resembling premining conditions, where applicable.

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4. If direct or indirect impacts are unavoidable, describe in detail the measures to be used to restore the area to pre-disturbance conditions and to enhance it.

The temporary destruction of small, insignificant, and undected water holding depressions during mining operations will be restored during the reclamation process by regrading the mined area in such a manner as to create numerous small water holding depressions approximately 1/4 acres in size of maximum depth of 2 feet to enhance the area for fish and wildlife.

When approved by the landowner, sediment basins will be left as permanent water impoundments to provide watering for wildlife and fish habitat.

5. Is any disturbance of wetland areas proposed which requires approval of the U.S. Army Corps of Engineers?
() Yes (XX) No

If Yes, provide necessary written approval.

(b) Endangered/Threatened Species and Critical Habitats:

1. Identify any endangered or threatened plant or animal species or their critical habitat which will be directly or indirectly impacted by the proposed mining operation.

No endangered to threatened plant or animal species or their critical habitat exists within the proposed permit area which will be directly or indirectly impacted by the proposed mining operation.

2. Describe the potential impact on any endangered or threatened plant or animal species or their critical habitat within the proposed permit or adjacent areas.

No endangered or threatened plant or animal species or their critical habitat exists within the proposed permit or adjacent areas which will be directly or indirectly impacted by the proposed mining operation.

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3. Describe in detail the measures which will be taken to prevent any adverse impact on any endangered or threatened plant or animal species or adjacent area.

No endangered or threatened plant or animal species or their critical habitat exists within the proposed permit or adjacent areas which will be directly or indirectly impacted by the proposed mining operation.

(c) Other Areas of Special Concern:

1. Identify the area of special concern:

No other areas of special concern were listed by the USFWS, the DCNR, or the Alabama Heritage Data Base.

2. Describe the potential impact on any other areas of special concern.

No other areas of special concern were listed by the USFWS, the DCNR, or the Alabama Heritage Data Base.

3. Describe in detail the measures which will be taken to prevent any adverse impact on any other areas of special concern or any endangered or threatened plant or animal species or their critical habitat within the proposed permit or adjacent areas.

No endangered or threatened plant or animal species or their critical habitat exists within the proposed permit or adjacent areas which will be directly or indirectly impacted by the proposed mining operation.

No other areas of special concern were listed by the USFWS, the DCNR, or the Alabama Heritage Data Base.

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(2) General Provision for Enhancement and Protection of Fish and Wildlife

- (a) Describe those measures which will be taken during the active mining phase of the operation to minimize or prevent impacts to fish and wildlife.

All required buffer zones or setbacks, as set forth in the regulations, will be honored to avoid, prevent and minimize impacts of areas of special concern. Sediment basins will be utilized to maintain water quality standards entering the receiving stream(s). Diversion ditches will be constructed to control and direct all disturbed drainage through approved sediment basins. Hay dams, silt fences and rock check dams will be used to control minimal offsite drainage, such as haulroads, out slopes of sediment basins, etc., not entering the sedimentation basins. Disturbed areas will be regraded and revegetated in a timely manner, as outlined in Part IV of this application, to provide fish and wildlife habitat closely resembling premining conditions, where applicable.

- (b) Describe the measures to be implemented during the reclamation process to enhance fish and wildlife.
1. During reclamation of the permit area, the disturbed area may be regraded in such a manner as to create small water holding depressions approximately 1/4 acre in size of maximum depth of 2 feet to enhance the area for fish and wildlife.
 2. All sediment basins, if approved by the AMC and the land owners, will be left as permanent water impoundments to provide watering for wildlife and fish habitat.
 3. Various herbaceous species including, but not limited to, Kobe Lespedeza, Vetch, Sericea Lespedeza Millet, and Ryegrass may be planted in scattered and random locations to provide food and cover for wildlife that closely resemble pre-mining condition. These plants will be added in addition to the vegetation proposed in Part IV of this permit application.
 4. As determined by the post mining land use of the permit area, all reclaimed areas greater than fifty (50) acres may be broken up by vegetation types to provide maximum variation of vegetation. The proposed post mining landuse for the permit area consists of undeveloped or no current landuse, pasture and agricultural. In this instance, areas

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along drainage courses, areas along the permit boundary, and areas around the proposed water holding depressions to be left in the regrading process may be planted with trees and shrubs, such as willow, loblolly pine, autumn olive, sawtooth oak, etc., to increase diversity of food and cover for wildlife.

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4. Is fish and wildlife habitat to be primary or secondary post-mining landuse? [780.18(b)(5)] () Yes (X) No.

If yes, describe in detail the post-mining measures to be taken to attain this land use including the target specie(s) of wildlife, plant species to be used and a map delineating the proposed arrangement of plant groupings and water sources on the permit area following reclamation.

5. If the pre-mining land use is fish and wildlife habitat and the proposed post-mining land use is cropland, describe the post-mining provisions to be made for wildlife. Attach a map showing the location of trees, hedges, or fence rows to be used to diversify habitat types, if appropriate. [780.18(b)(5)]

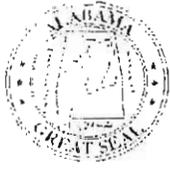
Not applicable.

6. If the post-mining land use is to be residential, commercial or industrial, describe the post-mining provisions to be made for wildlife such as greenbelts, trees, or hedgerows composed of plant species useful for wildlife. [780.18(b)(5)]

Not applicable.

7. If any exceptions to Section 816.117(c)(1-3) are proposed, describe in detail the proposed practice including target species of wildlife, plant species to be used, planting rate and/or stocking density, planting pattern with appropriate map and anticipated results of the proposed practice.

None proposed.



STATE OF ALABAMA
DEPARTMENT OF CONSERVATION AND NATURAL
RESOURCES
64 NORTH UNION STREET
MONTGOMERY, ALABAMA 36130

BOB RILEY
GOVERNOR

M. BARNETT LAWLEY
COMMISSIONER

HOBBIE SEALY
ASSISTANT COMMISSIONER

PATRICIA J. POWELL, DIRECTOR
GREGORY M. LEIN, ASSISTANT DIRECTOR
STATE LANDS DIVISION

TELEPHONE (334) 242-3484
FAX NO (334) 242-0999

February 22, 2010

Mr. Heath Franks
PERC Engineering Co., Inc.
P.O. Box 1712
Jasper, AL 35502-1712

RE: Sensitive Species Information request
Quality Coal Inc. - Sparks Branch No. 2

Dear Mr. Franks:

The Natural Heritage Section office received your e-mail dated 2/16/2010 addressed to Ashley Peters on 2/16/2010 and has since developed the following information pertaining to sensitive species (state protected, and federally listed candidate, threatened, and endangered species). I have enclosed a list of sensitive species which the Natural Heritage Section Database or the U.S. Fish and Wildlife Service have indicated occur or have occurred in Walker County. Additionally, I have listed some potentially helpful and informative web sites at the end of this letter.

The Natural Heritage Section database contains numerous records of sensitive species in Walker County. Our database indicates the area of interest has had no biological survey performed at the delineated location, by our staff or any individuals referenced in our database. Therefore we can make no accurate assessment to the past or current inhabitancy of any federal or state protected species at that location. A biological survey conducted by trained professionals is the most accurate way to ensure that no sensitive species are jeopardized by the development activities.

The closest sensitive species is recorded in our database as occurring approximately 2.6 miles from the subject site. This federally listed threatened species (Mohr's Barbara Button) is known only from northcentral Alabama to northwestern Georgia from a total of about 50 very localized sites. Many of the populations occur on or near roadside rights-of-way where they are vulnerable to a wide variety of activities such as road widening,



Mr. Heath Franks

2/22/2010

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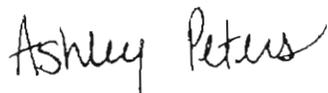
herbicide application, mowing, and planting of aggressive competitors. Other threats include the conversion of habitat to pasture, cropland, or pulpwood plantations, and the gradual encroachment of woody species into the open habitat in the absence of fire.*

I hope this information will be useful to you. The provided information is to help you in fulfilling your necessary legal obligations. This does not constitute any form of Section 7 consultation. The Natural Heritage Section recommends that the U. S. Fish and Wildlife Service field office in Daphne be contacted for Section 7 consultations.

The information does not suggest that protected species are not at this location. The specific location of a sensitive species is considered confidential information by a State Lands Division Regulation and can be released only to individuals who enter into a confidentiality and indemnity contract with the State Lands Division.

The Natural Heritage Section provides this information as a service to the people of Alabama. The NHS acts as a clearing house for species distribution data. We happily accept any information environmental researchers are willing to donate. Sensitive species exact locations are kept confidential. If you would be willing to donate any information to this database, we will be better able to assist all individuals interested in environmental compliance.

Sincerely,



Ashley Peters
Database Manager
Natural Heritage Section

Enclosures

*Paraphrased Information from NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 5.0. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: August 18, 2006).

Potentially helpful web sites

Information about federally listed species
<http://daphne.fws.gov/es/specieslst.htm>

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<http://www.pfmt.org/wildlife/endangered/>

<http://www.natureserve.org/explorer/>

State Protected Species Regulations:

<http://www.outdooralabama.com/hunting/regulations/regs.cfm>

ALABAMA'S FEDERALLY LISTED AND STATE PROTECTED SPECIES (BY COUNTY)

This is a list of protected species that are believed to occur in the designated county and the legal protection status of each species. This list is a combination of the U.S. Fish and Wildlife Service (Daphne field office) federally listed species county and state lists and the Alabama State Lands Division's Natural Heritage Section (SLD-NHS) Database of species occurrence data. This list is continually being updated, and, therefore, it may be incomplete or inaccurate and is provided strictly for informational purposes. Site specific information can be provided by the Alabama SLD-NHS and/or the U.S. Fish and Wildlife Service (Daphne field office) prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a sensitive species occurs within a project area. Species not listed for a given county does not imply that they do not occur there, only that their occurrence there is as yet unrecorded by these two agencies. This list is currently under review and reflects only our current understanding of species distributions. It also does not constitute any form of Section 7 consultation. The Alabama SLD-NHS recommends that the U.S. Fish and Wildlife Service field office in Daphne be contacted for Section 7 consultations.

Walker

Protection Status	Common Name	Scientific Name	Applicable State Regulation
Candidate	Black Warrior River Waterdog	<i>Necturus alabamensis</i>	
Endangered	Hasperella	<i>Ptilimnium nodosum</i>	
Endangered/ State Protected	Ovate Clubshell	<i>Pleurobema perovatum</i>	220-2-.98 (1) (a)
Endangered/ State Protected	Triangular Kidneyshell	<i>Ptychobranchnus greenii</i>	220-2-.98 (1) (a)
State Protected	Alligator Snapping Turtle	<i>Macrolemys temminckii</i>	220-2-.92 (1) (c)
State Protected	Long-tailed Weasel	<i>Mustela frenata</i>	220-2-.92 (1) (e)
State Protected	Paddlefish	<i>Polyodon spathula</i>	220-2-.94
Threatened	Mohr's Barbara's Buttons	<i>Marshallia mohrii</i>	
Threatened/ State Protected	Finelined Pocketbook	<i>Hamiota altilis</i>	220-2-.98 (1) (a)
Threatened/ State Protected	Flattened Musk Turtle	<i>Sternotherus depressus</i>	Section 9-11-269
Threatened/ State Protected	Orangenacre Mucket	<i>Hamiota perovalis</i>	220-2-.98 (1) (a)

Key to codes on list:

Endangered - Federally listed as an endangered species by the U. S. Fish and Wildlife Service

Threatened - Federally listed as a threatened species by the U. S. Fish and Wildlife Service

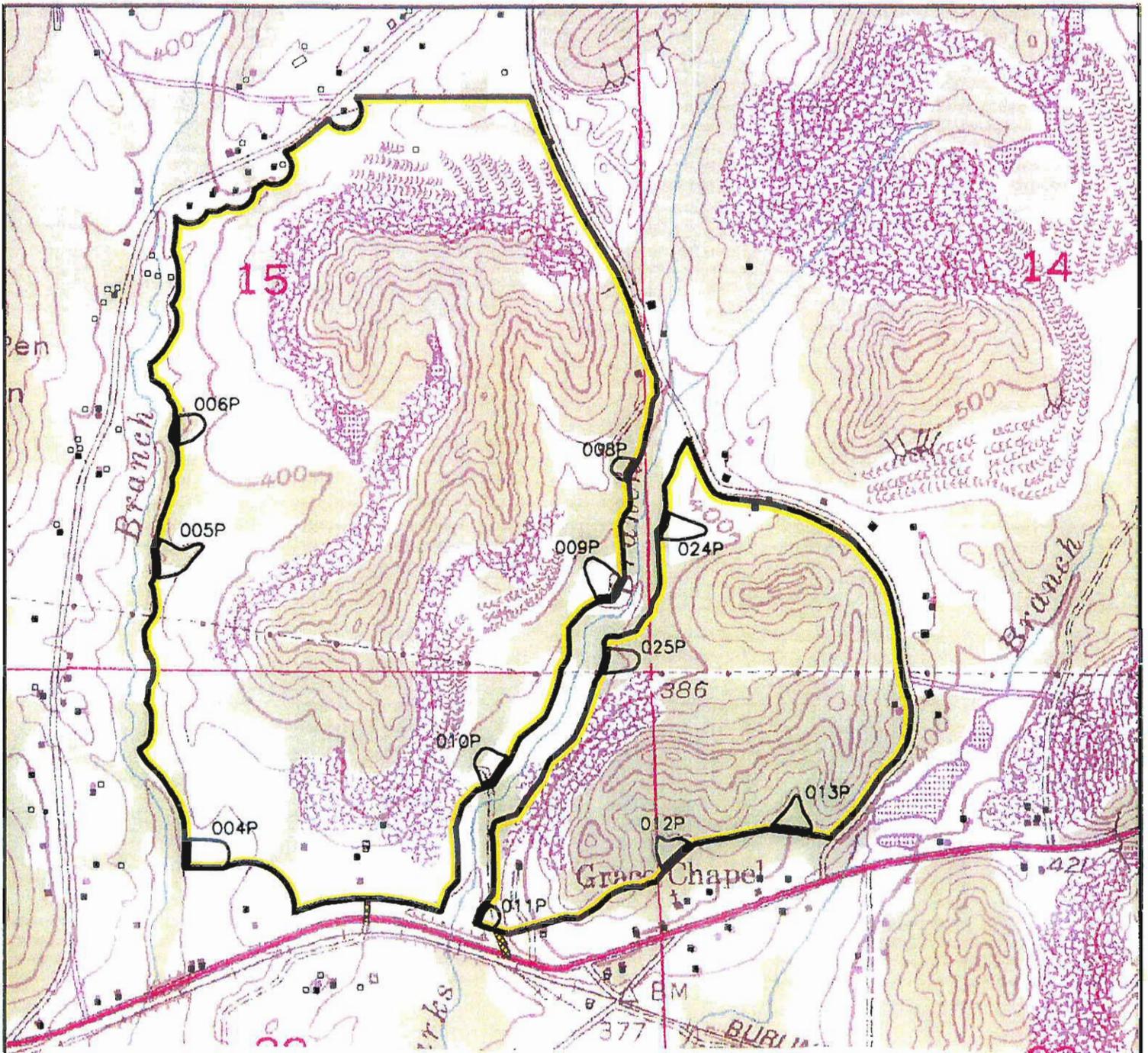
Candidate - Federally listed as a candidate species by the U. S. Fish and Wildlife Service

Experimental - Species is protected throughout its range, except for the nonessential experimental population, by the U. S. Fish and Wildlife Service

State Protected - It is unlawful to take, capture or kill; possess, sell or trade for anything of monetary value, or offer to sell or trade these species. Alabama Regulations relating to game, fish and furbearing animals. 2009-2010. Alabama Department of Conservation and Natural Resources. See <http://www.outdooralabama.com/hunting/regulations/regs.cfm> for more information.

Notes:

- Bald eagle (*Haliaeetus leucocephalus*), red-cockaded woodpecker (*Picoides borealis*) and the American peregrine falcon (*Falco peregrinus anatum*) may occur in any county, if habitat exists.
- Wood stork: July - October
- Bald eagle (*Haliaeetus leucocephalus*) has been delisted. This species is still protected by the non-game species regulation and the migratory bird act. This species distribution is statewide but it is most likely to be observed near large rivers and reservoirs.
- Sea turtles: Only loggerhead is potential nester, the rest are in coastal waters.
- Black bear (*Ursus americanus* sp.) - known to exist in Mobile County, but not listed.
- Gulf moccasinshell (*Mediondus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), Chipola slabshell (*Elliptio chipolaensis*), and purple bankclimber (*Elliptioideus sloatianus*) are freshwater mussels of the family Unionidae found only in eastern Gulf Slope streams draining the Apalachicola Region, defined as streams from the Escambia to the Suwannee river systems, and occurring in southeast Alabama, southwest Georgia, and north Florida. All are listed as "Endangered".
- Fanshell (*Cyprogenia stegaria*), oyster mussel (*Epioblasma capsaeformis*), and Catspaw (purple cat's paw pearlymussel) (*Epioblasma obliquata obliquata*) are historically known to be found in the Tennessee River system and drainage.
- Gentian pinkroot (*Spigelia gentianoides*) has been historically found along the Alabama-Florida border.
- West Indian Manatee (*Trichechus manatus*) has been known to move north along the gulf coast west to Louisiana.



Pre-Mine Landuse:

Two predominant land uses exist within the "Area of Interest": Previously disturbed and undeveloped forest. The previously disturbed areas within this area have been naturally revegetated and the only overstory which exists within these areas consists of different species of pine trees. Other vegetation which exists within these areas consists of tall fescue, kudzu, shoemaker, greenbriar, sawbriar, broom sedge, blackberry, mimosa, sicklepod, dog fennel, black nightshade, and crabgrass. Within the undeveloped forest areas the dominant overstory is a mixture of typical deciduous and pine forest. Species are as follows: red oak, white oak, post oak, hickory, beech, sweet gum, yellow and tulip poplar, virginia pine, buttermilk pine, loblolly pine, longleaf pine, and cedar. Understory in these areas consists mainly of dogwood, sassafras, mimosa, and muckiedine. Ground cover in these areas consists mainly of immature species mentioned above and fallen leaves from the above species, but also includes sawbriar, kudzu, and mullein.

MAP LEGEND

-  Area of Interest
-  Occupied Dwelling
-  Unoccupied Dwelling
-  Proposed Basin

Note: Area of interest occupies 444 acres.

Base map taken from the Jasper, Alabama USGS Quadrangle.



Quality Coal Co., Inc.
Sparks Branch Mine No. 2
Site Location Map

DRAWN BY: G.R.	DATE: 11-17-06
DWG. NAME: QCS25UM	
APPROVED BY: J.W.F.	SCALE: 1"=1000'

C:\Users\jw\Documents\Quality Coal Co., Inc.\QCS25UM.dwg



STATE OF ALABAMA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
WILDLIFE AND FRESHWATER FISHERIES DIVISION
64 NORTH UNION STREET, SUITE 567
POST OFFICE BOX 301456
MONTGOMERY, ALABAMA 36130-1456
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www.outdooralabama.com



BOB RILEY
GOVERNOR

M. BARNETT LAWLEY
COMMISSIONER

The mission of the Wildlife and Freshwater Fisheries Division is to manage, protect, conserve, and enhance the wildlife and aquatic resources of Alabama for the sustainable benefit of the people of Alabama.

M. N. "CORKY" PUGH
DIRECTOR

FRED R. HARDERS
ASST. DIRECTOR

March 10, 2010

Heath Franks
PERC Engineering Co., Inc.
P.O. Box 1712
Jasper, Alabama 35502

**Re: Quality Coal, Inc.
Sparks Branch Mine No. 2**

Dear Mr. Franks:

Based on a review of the project proposal, the Division of Wildlife and Freshwater Fisheries has no objection provided:

1. No state- or federally-protected species is adversely impacted by mining. We note that you have coordinated with the Natural Heritage Section by letter dated February 22, 2010 regarding potential impacts to both State- and Federally-protected species for the proposed permit area. Please contact the U.S. Fish and Wildlife Service (251-441-5181) regarding potential impacts to federally-protected species. If there is a potential for adverse impacts to state- or federally-protected species, a sensitive species survey by a qualified biologist is strongly recommended. If adverse impacts to protected species occur as a result of the project, further coordination with the Division of Wildlife and Freshwater Fisheries (334-242-3851) and the U.S. Fish and Wildlife Service will be required.
2. No net loss of stream or wetland function and habitat should occur as a result of the project. If flowing streams, ditches, or wetlands will be impacted by the proposed activity, the Army Corps of Engineers - Mobile District (251-690-3188), should be contacted to determine if the activity falls under a Corps regulation requiring mitigation for adverse ecological, morphological, or hydrological impacts. Be advised that the USACE advises that all wetlands on mine sites, whether on previously disturbed or pristine areas, fall within the category of jurisdictional wetlands; however, dredge and fill activities might be permitted under specified conditions. We have no objection to the use of a wetland mitigation protocol such as WRAP (the Wetland Rapid Assessment Procedure), provided it is properly applied and provided that temporal losses are correctly accounted for. We have no objection to the purchase of mitigation credits from a Corps-sanctioned wetland mitigation bank.

3. The density or diversity of aquatic biota is not adversely impacted and that aquatic habitat quality in streams and wetlands is not diminished: excessive siltation resulting from uncontrolled erosion at a mine site can be as destructive to the aquatic ecosystem of a stream or wetland as acid mine discharges. We are therefore very concerned about the degradation/loss of aquatic habitat which may occur as a result of siltation associated with mining operations. We are also very concerned about the loss of stream habitat and stream functions which occur when settling ponds are constructed on intermittent or perennial streams. Such ponds not only result in the loss of stream functions within the impounded areas, but downstream flows below the dam are altered (during low rainfall periods, there is often no flow or inadequate flow in the stream downstream of the dam) and the upstream movement of fish is restricted except during floods, resulting in aquatic habitat fragmentation. Sediment ponds should be temporary and subsequently removed post mining. The best way to protect aquatic habitat is to prevent sediment from entering a stream or wetland, not to contain the sediment within the stream or wetland once it has entered the aquatic ecosystem. We therefore recommend that spoil banks or other slopes be grassed as early as possible (well prior to reclamation), that silt barriers, terraces, and check dams be properly installed and maintained, that streamside buffer zones be 100 feet in width and well vegetated in order to function properly, that sedimentation ponds not be constructed in streams or wetlands, and that the mine owner/operator should be responsible for in-kind restoration or mitigation if streams or wetlands are adversely impacted by mining activities.
4. Channel realignment, excavation, diversion or alteration of flow, impoundment, or excessive sedimentation of streams should not occur as a result of mining. If such impacts do occur, the mine owner/operator should provide corrective action through active restoration or stream mitigation for unresolved impacts.
5. State water quality standards (particularly those related to erosion control, water turbidity, and dissolved oxygen) should be strictly adhered to.

We appreciate the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew D. Marshall". The signature is stylized and somewhat cursive, with a horizontal line extending to the left.

Matthew D. Marshall
Environmental Coordinator



PERC
ENGINEERING CO., INC.

2010-TA-0308

EB 24 2010

Telephone: (205) 384-5553
Facsimile: (205) 295-3114 - Main Building
(205) 295-3115 - Water Lab
Web Address: www.percengineering.com

February 22, 2010

Mr. Bill Pearson
Fish and Wildlife Services
Daphne ES Field Office
1208-B Main Street
Daphne, Alabama 36526

Post-it® Fax Note	7671	Date	3/10/10	# of pages	1
To	Heath Franks		FROM: Sandy M		
Co./Dept.	PERC		Co.: USFWS		
Phone #			Phone #: 251-441-5184		
Fax #	205-295-3114		Fax #: 251-441-6222		

RE: Quality Coal, Inc.
Sparks Branch Mine No. 2

Dear Mr. Pearson:

Attached please find a request for the identification of areas of special concern and mapping showing the proposed permit area for the above referenced disturbance for a surface coal mining operation. This area is identified on the attached map as the "Area of Interest ". I have attached a copy of the correspondence with Alabama Department of Conservation and Natural Resources Natural Heritage Section. Please process at your earliest convenience. Your prompt consideration will be most appreciated.

If you require additional information, please feel free to call at (205) 295-3112 or email at hfranks@percengineering.com.

Sincerely,
PERC Engineering Co., Inc.

Heath Franks

Heath Franks
Environmental Scientist



U.S. Fish and Wildlife Service
1208-B Main Street - Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

No federally listed species/critical habitat are known to occur in the project area. As described, the project will have no significant impact on fish and wildlife resources. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW. We recommend use of best management practices specific to your project (See <http://www.fws.gov/daphne/section7/bmp.html>).

William J. Pearson
William J. Pearson, Field Supervisor

3/10/2010
Date

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Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

B. Cultural, Historical and Archaeological Resources

1. Describe and identify any cultural or historical resources located in or adjacent to the proposed permit area which are listed on the National Register of Historic Places. Delineate the location of the resources on the permit map. Describe in detail the measures to be taken to minimize or prevent adverse impacts on the resource(s). (779.12, 780.14, 780.31)

See Attachment II-B.

2. Describe and identify any known significant archaeological sites located in or adjacent to the proposed permit area. The description shall be based on all available information including, but not limited to, data of State and local archaeological agencies. Delineate the site(s) on the permit map. (779.12, 780.14)

See Attachment II-B.

C. Threatened and Endangered Species

Identify any threatened or endangered species of plants or animals or critical habitats of such species located in or adjacent to the proposed permit area. Delineate the location of the specie(s) or habitat(s) on the permit map. (780.14)

See Attachment II.-A.-2.



STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0800

FRANK W. WHITE
EXECUTIVE DIRECTOR

May 3, 2010

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

Heath Franks
PERC Engineering
P.O. Box 1712
Jasper, Alabama 35502

Re: AHC 10-0628
Cultural Resource Assessment
Sparks Branch Mine
Walker County, Alabama

Dear Mr. Franks:

Upon review of the cultural resource assessment conducted by the Office of Archaeological Research, 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. Artifacts are objects made, used or modified by humans. These include but are not limited to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are postholes, building foundations, trash pits and even human burials. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

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

Truly yours,

A handwritten signature in blue ink, reading "Elizabeth Ann Brown".

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/JG/GCR/gcr

A Phase I Archaeological Survey
of ± 440 Acres for the Proposed Sparks Branch Mine
in Walker County, Alabama

Samuel D. Mizelle, II

PERFORMED FOR:
PERC Engineering Inc
P.O. Box 1712
Jasper, Alabama 35502

PERFORMED BY:
Resources Assistant
The University of Alabama
Office of Archaeological Research
13075 Moundville Archaeological Park
Moundville, Alabama 35474

APRIL 2010

OFFICE OF ARCHAEOLOGICAL RESEARCH

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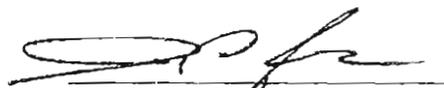
A Phase I Archaeological Survey of ± 440 Acres for the Proposed
Sparks Branch Mine in Walker County, Alabama

OAR PROJECT NUMBER: 10-147

PERFORMED FOR: PERC Engineering, Inc.
P.O. Box 1712
Jasper, Alabama 35502
Attn: Mr. Heath Franks

PERFORMED BY: Samuel D. Mizelle, II, Cultural Resources Investigator
Daryll R. Berryman, Cultural Resources Assistant
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Office of Archaeological Research
13075 Moundville Archaeological Park
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DATE PERFORMED: March 29, 2010



Samuel D. Mizelle, II
Cultural Resources Investigator
Office of Archaeological Research



Eugene M. Futato RPA/Deputy Director
The University of Alabama
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*A Phase I Archaeological Survey
of ± 440 Acres for the Proposed Sparks Branch Mine
in Walker County, Alabama*

Samuel D. Mizelle, II

Introduction

The University of Alabama, Office of Archaeological Research (OAR) was contracted by PERC Engineering, Inc., to perform a cultural resources reconnaissance survey of approximately 440 acres for a proposed coal mine in Walker County, Alabama. Samuel D. Mizelle, II (Cultural Resources Investigator) and Daryll R. Berryman (Cultural Resources Assistant) conducted the survey, and Mr. Mizelle and Eugene M. Futato RPA served as Co-Principal Investigators for the project. The pedestrian survey was conducted during the week of March 29, 2010 to locate and identify any archaeological sites or historic standing structures within the survey boundaries, assess their archaeological significance, and provide eligibility recommendations based on the guidelines set forth by the National Historic Preservation Act and the Alabama Historical Commission.

Literature and Document Search

The Alabama State Site File (ASSF), housed at OAR, contains no previously recorded sites within the project area or immediate vicinity (OAR 2002). The National Archaeological Database Bibliography lists no previous surveys conducted within the project area. Neither the National Register of Historic Places (NRHP) nor the Alabama Register of Landmarks and Heritage list any properties within the immediate vicinity of the project area. The *Historical Atlas of Alabama, Vol. 2* lists no historic cemeteries located within the survey area (Remington 1999).

Environmental Setting

As seen on the Jasper, Alabama USGS 7.5 minute topographic map, the study areas are located in Sections 14, 15, 22 and 23 of T14S, R8W (Figure 1). The project area is divided into two sections divided by Sparks Branch. Located approximately three miles to the west of Jasper, the proposed mine is bound by Highway 124 to the south and Hillard Loop Road on the west, north, and east sides. There are two predominant landforms that make up the bulk of the project area. These hills are quite steep with narrow ridgelines. Much of the area is being actively timbered, and approximately 100 acres of the land has been previously mined (Figures 2–5). Sparks Branch does not appear to have carried much water in recent years, as a stream channel was barely discernable in most places. There was considerable standing water in low-lying areas in the flood plain (Figures 6 and 7). Located along the western boundary of the project area,

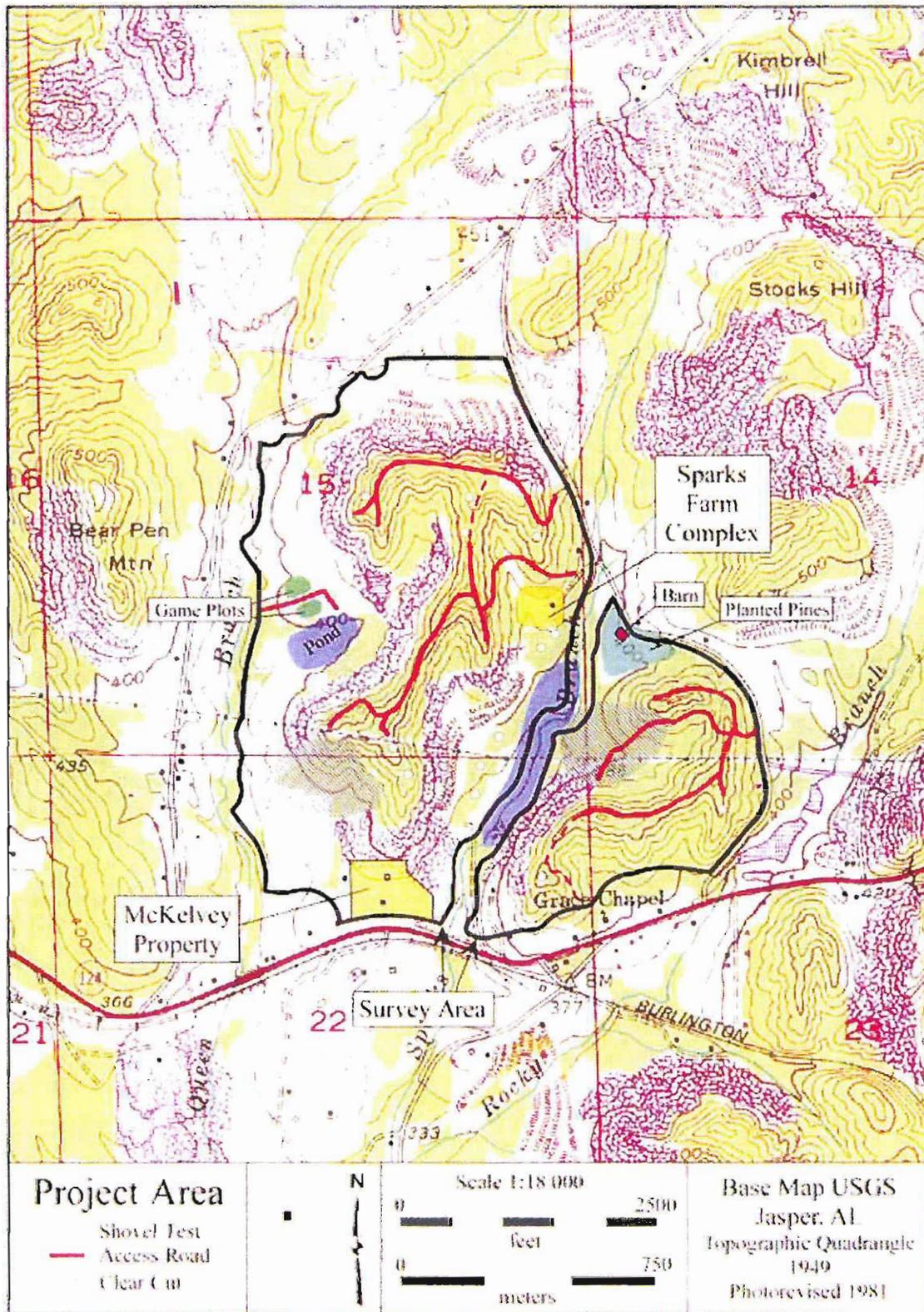


Figure 1. Project area as seen on Jasper, Alabama USGS topographic map.



Figure 2. View of clear cutting on east side of Sparks Branch.



Figure 3. View of logging activities on hill slope east of Sparks Branch.



Figure 4. View of previously mined area east of Sparks Branch.



Figure 5. View of previously mined area on south end of project area.



Figure 6. View of inundated flood plain along Sparks Branch.



Figure 7. View of inundation and vegetation in floodplain.

Queen Branch currently has a slow moving water flow, as the channel is as much as four feet wide in some places. Several local residents commented that Queen Branch has considerably more water due to the volume of rain this year than in years past.

The project area lies within the Warrior Basin district of the Cumberland Plateau physiographic section. This district is a “synclinal submaturely to maturely dissected sandstone and shale plateau of moderate relief” (Sapp and Emplainscourt 1975). Topographically, the project has elevations ranging from approximately 350 to 580 feet AMSL.

The National Cooperative Soil Survey for Jasper County (NCSS 2007) classifies four soil types within the survey area: Brilliant and Palmerdale extremely channery loams, 6 to 60 percent slopes (26% of project area), Spadra-Whitwell complex, 0 to 3 percent slopes (9% of survey area), Sunlight Townley complex, 15 to 45 percent slopes (39% of project area) and Townley silt loam, 6 to 15 percent slopes (26% of survey area) (Figure 8).

A typical soil profile in undisturbed upland environs consisted of 4–10 centimeters of dark yellow brown silt loam, underlain by a yellow brown silty clay loam with siltstone and sandstone gravels. The lower elevations on the west side of the project area were likely in cultivation or pasture in years past, but are now densely covered with small hardwoods, scrub vegetation and planted pines. Soils in these areas can be characterized as dark grey brown silt loam underlain by a brownish red clay loam.

Field Methods

The field survey implemented standard survey techniques, and followed the guidelines set forth by the Alabama Historical Commission. Field investigations were conducted by a pedestrian reconnaissance using visual inspection of exposed ground surfaces, as well as subsurface testing. All shovel tests measured 30 cm in diameter and were excavated to a depth of at least 30 cm or until sterile subsoil or bedrock was encountered. All excavated soils were screened through 6 mm wire mesh to recover cultural materials.

As evident from the topographic map and the soil descriptions for the project area, approximately 65% of the project area has either been previously disturbed by mining or is too steep to warrant shovel testing at regular intervals. In addition, there are logging roads and core drilling access roads extending down the ridgelines and some of the side slopes, further reducing the potential for archaeological sites (Figures 9–10). The roads were walked over and visually inspected for artifacts in lieu of shovel testing in these areas (Figure 11). Due to the readily apparent ground disturbances, areas that were clear cut or immediately adjacent to previously mined areas were also only visually inspected. No archaeological sites were identified during the course of the survey.

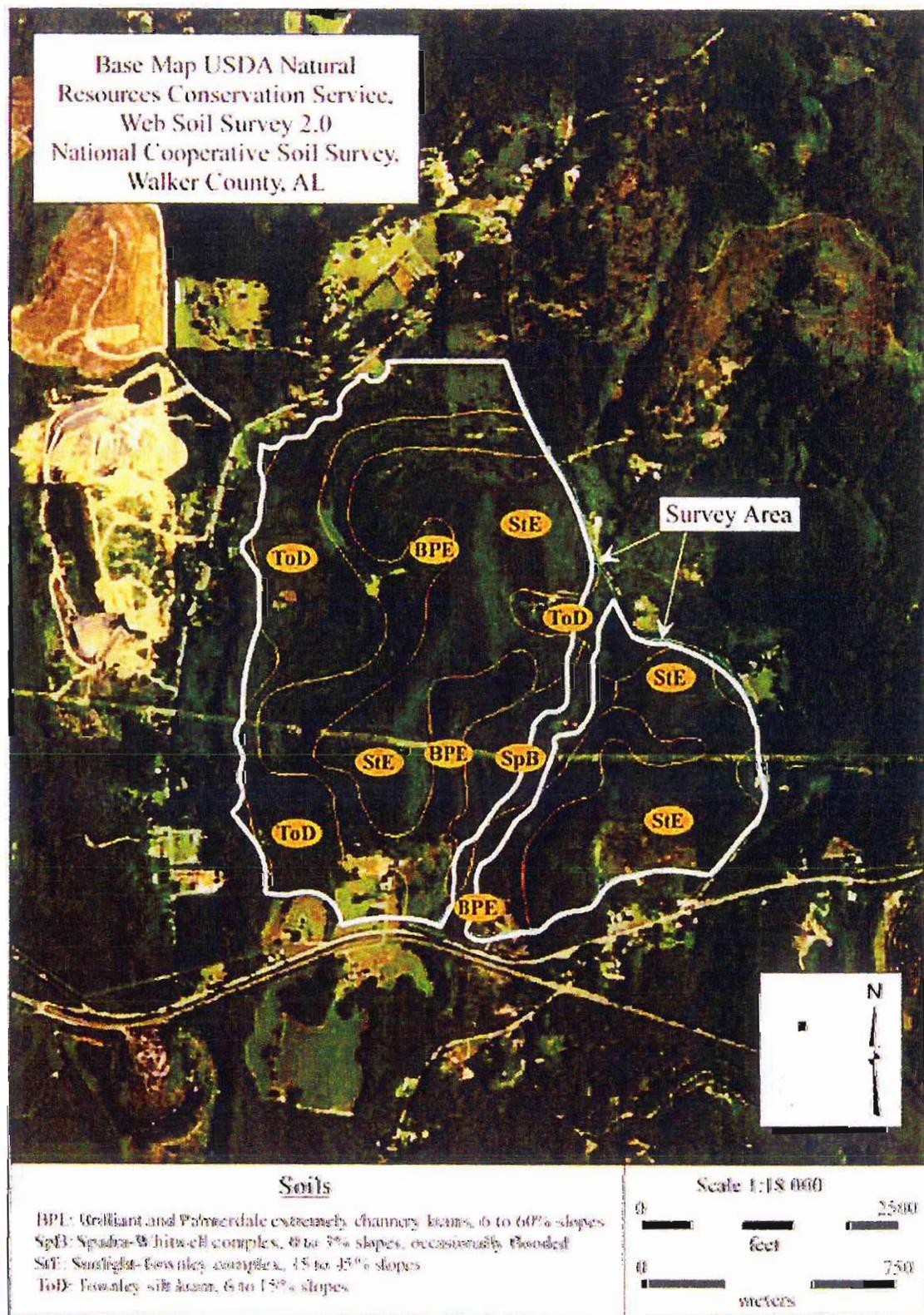


Figure 8. Soil associations within project area.



Figure 9. North facing view of ridgeline road and surface visibility.



Figure 10. North facing view of road cut along narrow ridgeline and planted pines.



Figure 11. Ground surface inspection along road cut.

Standing Structures

There are seven residences shown on the 1949 USGS topographic map, none of which are still in existence. Several of the earlier homes at these locations have been replaced by circa 1960s or 1970s era houses or mobile homes, some of which are abandoned (Figures 13–15). One property within the project area is worth noting. The property is located on the west side of Hillard Loop Road, just above Sparks Branch, and owned by the family of Mr. Glenn Sparks, who lives less than ¼ mile to the south. The property was a working farm in Mr. Sparks' youth, and four outbuildings on the property appear to date to that time period. They are a circa 1930s wood frame smokehouse with a gable roof of corrugated metal, weatherboard cladding and a side shed addition; a circa 1930s outhouse with corrugated metal shed roof with board and batten siding; a circa 1930s shed with a standing seam metal roof and weatherboard cladding; a circa 1930s collapsed wood frame barn with a standing seam metal roof and weatherboarding (Figures 16–20).

The original house no longer exists. Mr. Sparks indicated that he and his brother built the current house after his brother returned from the Korean War, which lasted from 1950-1953. It is a one story wood frame bungalow with a cross gable roof of standing seam metal. It has weatherboard siding, flanking 3 over 1 double hung sash windows, an off center single leaf door and a partial width porch with engaged roof and wood posts (Figures 21-24). The



Figure 12. Mr. Terry McKelvey residence on Highway 124, with previous house site in foreground.



Figure 13. Mr. Glenn Sparks residence on Hittard Loop Road.



Figure 14. Mobile home located at house site as shown on the 1949 USGS map.



Figure 15. A abandoned trailer on west side of Hillard Loop Road.



Figure 16. West elevation of circa 1930s smokehouse on Sparks family property.



Figure 17. South elevation of circa 1930s smokehouse on Sparks family property.

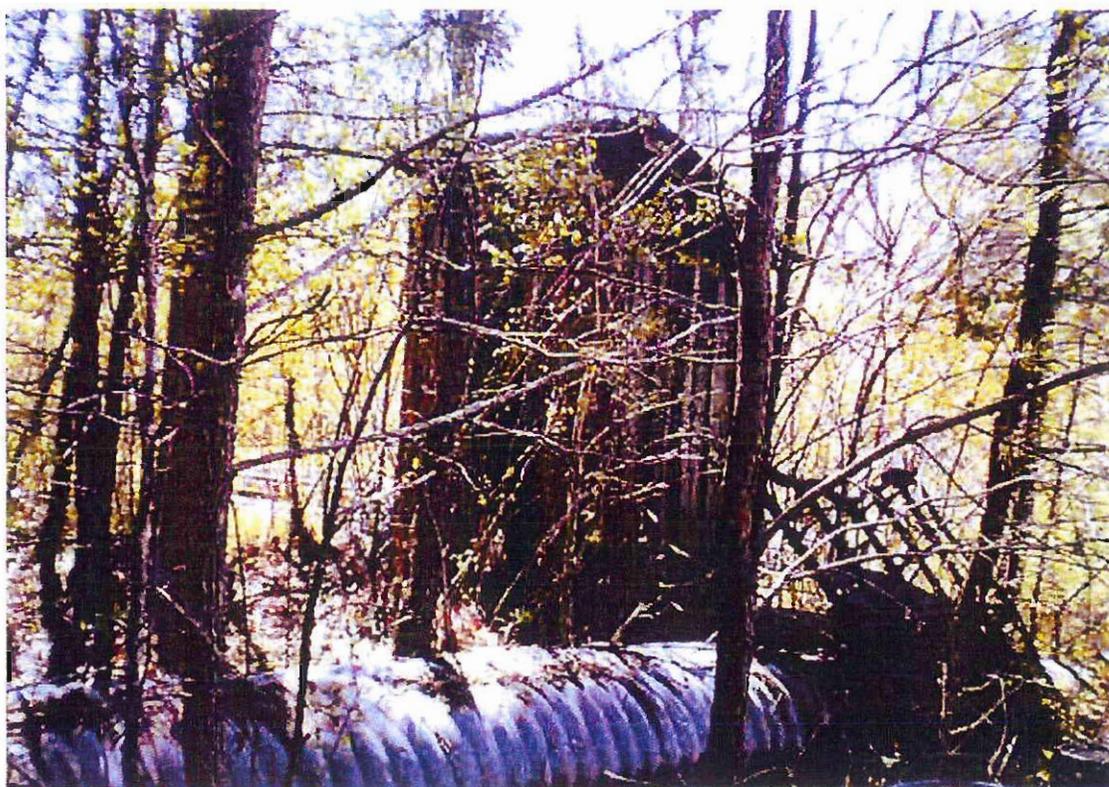


Figure 18. Single seat outhouse on Sparks family property.



Figure 19. Circa 1930s shed on Sparks family property.



Figure 20. Collapsed circa 1930s barn on Sparks family property.



Figure 21. House built by Mr. Glenn Sparks and brother, post Korean War.



Figure 22. View of porch and foundation, Daryll Berryman and Mr. Glenn Sparks on right.



Figure 23. South elevation of Sparks house.

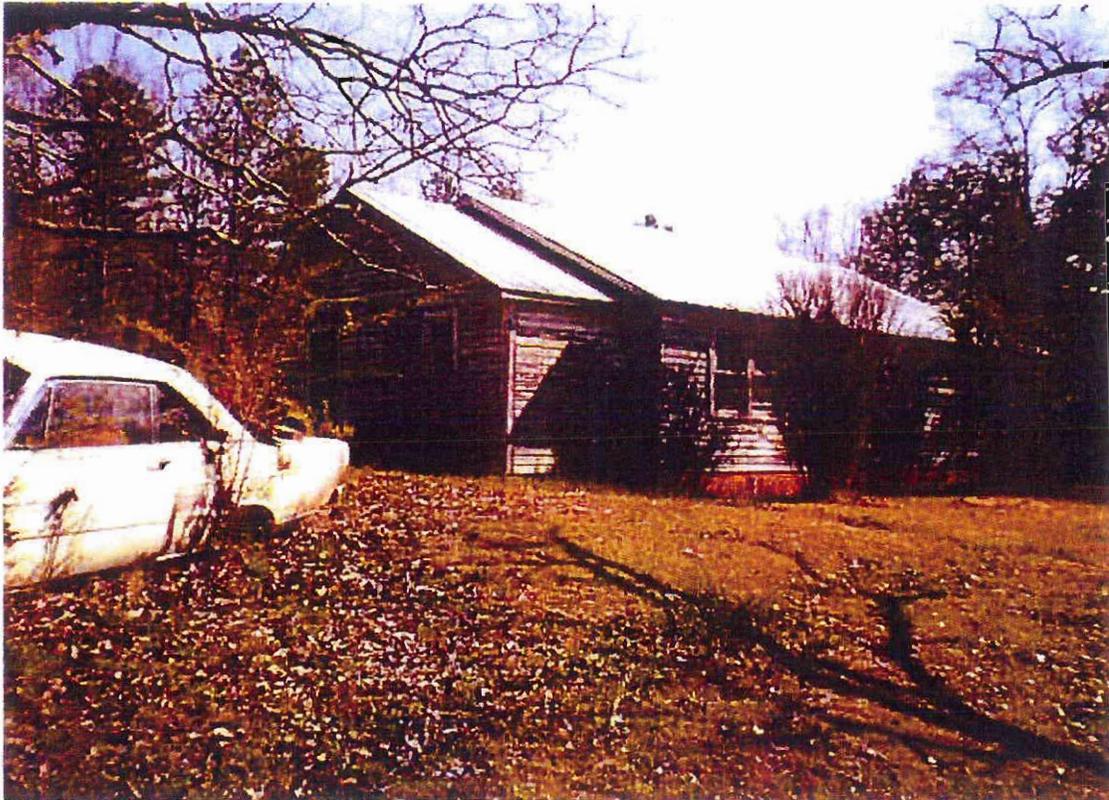


Figure 24. Northeast facing view of Sparks house.

foundation is brick, as is the exterior chimney. Although the house maintains integrity, it does not meet the criteria for significance. The larger farm complex does not retain integrity, as the historic farm house associated with the complex no longer stands. Outside of a small garden plot (Figure 25), the rest of the property is no longer used in an agricultural capacity. Three of the outbuildings are no longer in use and the barn has collapsed. Due to integrity issues, the farm complex does not meet NRHP eligibility criteria.

One other barn was identified in a stand of planted pines, also on the west side of Hillard Loop Road, closer to Mr. Sparks' current residence. Mr. Sparks did not mention this barn, so it is assumed to have once been associated with the residence across the street. Again, the original house shown on the 1949 USGS map has been replaced by a 1970s era house. The barn is wood framed with weatherboard cladding and a standing seam metal roof (Figure 26–28). A variety of materials were used in its construction, but it is predominantly milled lumber and wire cut nails. There are a few logs that provide floor supports, and the corner foundations are stacked stone. While the stone and log supports could suggest an early date of construction, these materials are readily available and continue to be used in more recent times. The other materials used in the barn's construction suggest that the barn, while certainly not new, is not of a historic nature. None of the contents of the barn appeared to be any more than twenty to thirty years old (Figures 29 and 30). Furthermore, it does not retain integrity as part of a farm complex and is not considered to meet NRHP eligibility criteria based on its individual merits.



Figure 25. Remaining garden plot on Sparks Family property.



Figure 26. Northwest facing view of abandoned barn on west side of Hillard Loop Road in planted pines.

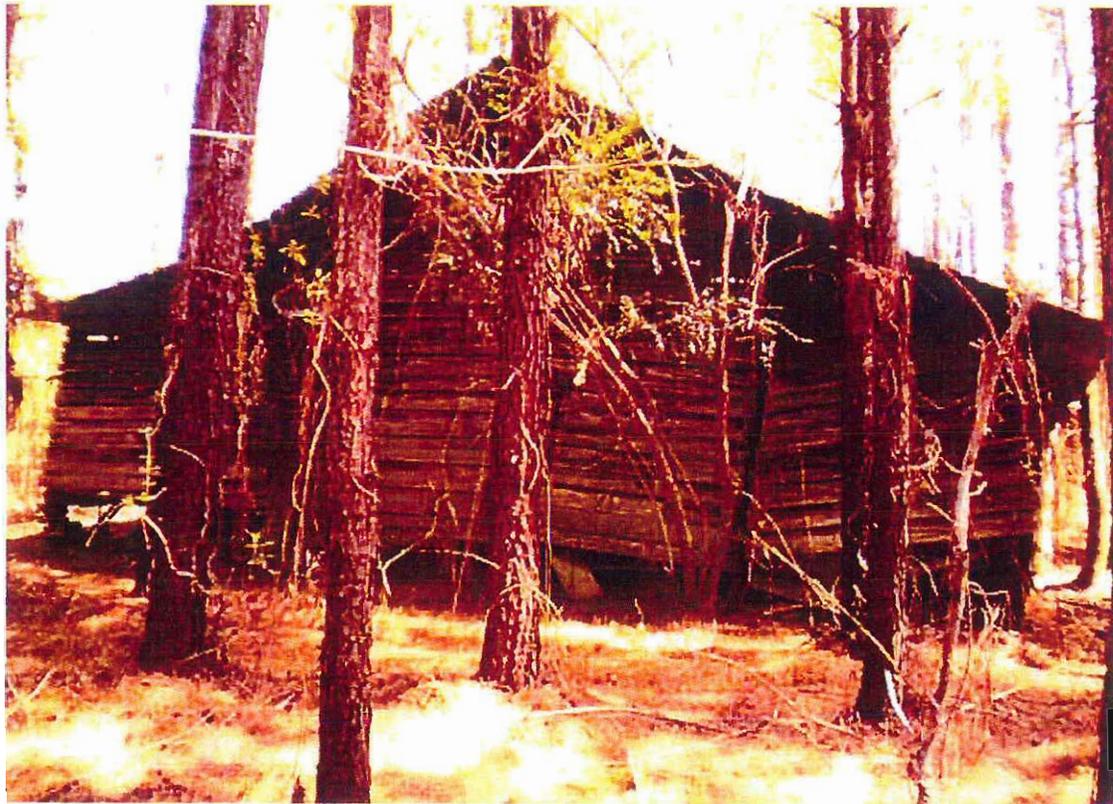


Figure 27. West elevation (back) of abandoned barn.



Figure 28. Northwest corner of abandoned barn.



Figure 29. Contents of lean-to portion of barn, facing west.

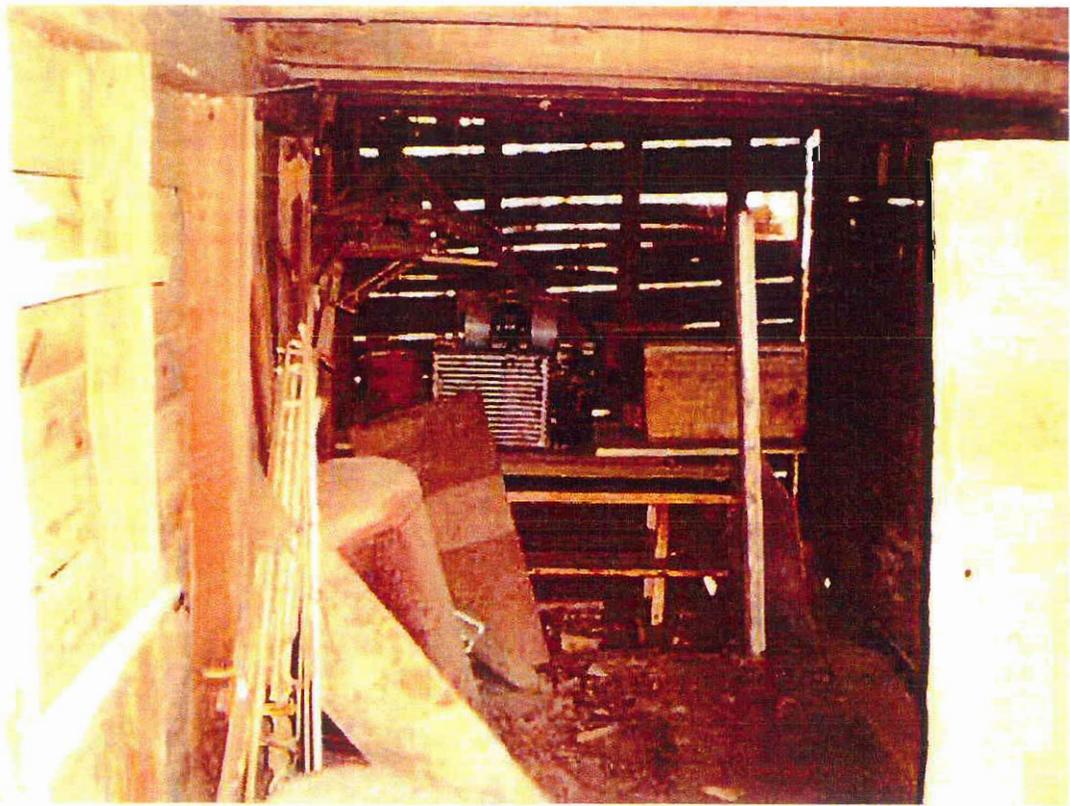


Figure 30. Contents of central compartment of barn

Laboratory Methods and Collection Curation

All photographs, field notes, maps, and documentation pertinent to the survey will be curated at the Erskine Ramsay Archaeological Repository located at Moundville Archaeological Park. This repository meets Department of the Interior curation standards as defined under 36 CFR Part 79.

Results and Recommendations

During the course of the survey, no archaeological sites were identified. No artifacts were found within any of the shovel tests conducted or during visual inspection of the exposed ground surfaces. The project lands have been severely impacted by previous mining and logging. All of the original residential standing structures are no longer present. The Sparks Family farm complex and the abandoned barn are not considered to meet the NRHP eligibility criteria. Based on the absence of any significant cultural materials or standing structures within the vicinity, this office recommends a finding of no properties.

References Cited

- Remington, Craig W. (Editor)
1999 *Cemetery Locations by County. Historical Atlas of Alabama, Volume 2.* Department of Geography, University of Alabama, Tuscaloosa, Alabama.
- Sapp, C. Daniel, and Jacques Emplaincourt
1975 *Physiographic Regions of Alabama.* Map 168. Geological Survey of Alabama, University.

Internet References

- Office of Archaeological Research, University of Alabama Museums (OAR)
2002 Alabama State Site File. Secure electronic document, accessed March 26, 2010.
- National Cooperative Soil Survey (NCSS)
2007 United States Department of Agriculture, Resources Conservation Services, Web Soil Survey 2.0, National Cooperative Soil Survey, St. Clair County, Alabama. Accessed April 1, 2010.

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

D. Lands Unsuitable For Mining

1. Are there any areas located in or adjacent to the proposed permit area which have been designated unsuitable for mining or are under study for such designation in an administrative proceeding?(778.16)

() Yes. (XXX) No.

If yes, give the name(s) of the area(s), if known. Delineate the area(s) on the permit map. (780.14)

2. Describe in detail the measures to be taken to minimize or prevent adverse impacts on any public park. (780.31)

There are no public parks in or adjacent to the permit area.

3. Are request for waivers included in this application? (761.12)

() Yes. (XXX) No.

4. Do you claim exemption to this part based upon:

(a) Operations existing on the proposed permit area on August 3, 1977; or

(b) Operations subject to valid existing rights on August 3, 1977; or

(c) Substantial legal and financial commitments made prior to January 4, 1977? [762.13, 778.16(b)]

() Yes. (XXX) No.

If yes, give reason(s) for the claim with appropriate documentation.

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

E. Geology (779.13) See Attachment II-E

1. Give a description of the geology within the proposed permit area including, but not limited to, the logs of drill holes, or a description of a highwall, with thicknesses of overburden and coal down to the first aquifer to be affected below the lowest coal seam to be mined to identify acid-forming or toxic-forming zones.
2. Chemical analysis conducted to identify acid-forming or toxic-forming zones shall be made on a representative number of samples of the overburden within the permit area. Sampling of the overburden may be collected at five foot intervals from a lithologic unit or from the entire thickness if the unit is less than 5 feet thick, when the lithology is below the oxidized zone; from the oxidized zone one composite sample shall be collected and analyzed. Samples may be taken from drill holes or from channel samples from a highwall.
3. Analysis of each overburden sample shall be run for total sulfur. If the sulfur content is one percent or greater, it is recommended that additional analysis be run for pyritic sulfur. From a composite sample of each drill hole or channel sample of the highwall, neutralization potential analysis shall be run and the acid-base account calculated using the average of the sulfur content for the sampling location. Results shall be included in the permit application.
4. Total sulfur analysis of the coal seam(s) to be mined shall be run and reported with the permit application.
5. The name, depth, thickness, strike and dip of the coal seam(s) to be mined shall be included in the permit application.
6. Location of the coal crop line(s) within the proposed permit area are to be shown on an appropriate map.
7. All necessary maps and cross-sections needed to support the geologic description shall conform with the requirements of Section 780.10(b).
8. When used to collect information for the permit application, elevations and locations of test borings, core samples or other sample sites shall be provided (topographic map accuracy is adequate).

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

F. Groundwater Hydrology (779.13) See Attachment II-F.

The permit application shall contain a description of the groundwater hydrology within the proposed permit area and potentially impacted off-site areas. In obtaining the necessary base line or pre-mining information, the applicant should be guided in conducting the studies by the availability and usage of groundwater in the potentially impacted off-site areas with particular emphasis being placed on those locations where present or potential future usage of groundwater is of local importance. The description should be based on a comprehensive survey of existing water wells and springs that may be affected by the proposed mining operations or from wells drilled by the applicant. Information addressed in the survey shall include:

- (1) Static elevation of the groundwater.
- (2) Elevation and depth below the surface of any aquifer(s) or water table encountered.
- (3) The lithologic description and thickness of any aquifer(s) encountered.
- (4) Results of aquifer test(s), if conducted, shall be reported identifying the transmissivity, draw down, recovery rates, and specific capacity.
- (5) Known uses of the groundwater such as light industrial, agricultural, domestic, etc. estimating the approximate amount of water used per day.
- (6) Quality of the groundwater should be determined using sampling and laboratory techniques cited in Section 779.13(d)(4) or equally reliable methods to determine at a minimum:
 - (I) pH;
 - (ii) Total iron, mg/l;
 - (iii) Total manganese, mg/l;
 - (iv) Total dissolved solids or specific conductance at 25° C if the latter can be shown as a direct relationship with total dissolved solids.
- (7) Describe any geological structures including their orientation that will have an affect on the movement of the groundwater in the aquifer such as:
 - (I) Joint systems;
 - (ii) Faults or fault zones;
 - (iii) Folds;
 - (iv) Cleats in the coal; and
 - (v) Bedding planes.
- (8) Appropriate maps and cross-sections needed to supplement the description of the groundwater hydrology shall conform with the requirements of Section 780.10(b).

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

G. Surface Water Hydrology (779.13) See Attachment II-G.

The permit application shall contain information and a description of the surface water that will flow into or from the proposed permit area in a form and to a degree that will describe seasonal variations in both quantity and quality of the surface water within the proposed permit area and potentially impacted off-site areas. The pre-mine or base-line study should be designed to a level that takes into consideration water availability and present and potential future usage of the surface water. The period of time for which such a survey should be conducted is flexible, but should be adequate to properly evaluate low flow and high flow conditions based on either site specific studies, or where available, from existing data files which are reasonable and statistically representative of the proposed permit and potentially impacted off-site areas. At a minimum the submitted information on the surface water hydrology shall include:

- 1) Name of the water shed(s) which will receive discharge from the proposed permit area.
- 2) The location of any surface water bodies such as streams, lakes, important impoundments or springs that may be adversely affected by the proposed mining operations.
- 3) Known use of the surface water leaving the proposed permit area (or that will receive discharge from it), if any.
- 4) Water quality data shall be submitted to identify seasonal flow characteristics of, at a minimum:
 - (I) pH;
 - (ii) Total iron, mg/l;
 - (iii) Total manganese, mg/l;
 - (iv) Total suspended solids;
 - (v) Total dissolved solids or specific conductance at 25°C if the latter can be shown to have direct relationship with the total dissolved solids;
 - (vi) Base-line acidity information shall be provided if the need for acid neutralization is anticipated for the proposed mining operation or if required by the regulatory authority.
- 5) Water sampling and analytical methods listed in the references cited in Section 779.13(d)(4) or their equivalent should be used. Standard Methods For The Examination of Water and Wastewater.

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

- 6) When modeling or other simulation methods are employed to evaluate the affects of mining on the hydrologic regime both on and off the proposed permit area, representative seasonal precipitation data shall be reported.
- 7) The location of monitoring stations used to collect data for the permit application should be shown on a map which conforms to the standards of Section 780.10(b).

H. Determination of the Probable Hydrologic Consequences
(779.13)

See Attachment II-H.

The permit application shall contain a determination of the probable hydrologic consequences (PHC). The probable hydrologic consequence is a prediction of possible adverse affects of the proposed surface mining and reclamation activities upon the quantity and quality of surface and groundwater systems both on and off the proposed permit area and is based upon the results and findings of the base-line or pre-mining geologic and hydrologic studies. The assessment may be based upon site specific studies or from representative data that can be transferred or can be made to simulate the condition at the proposed permit and off-site areas.

- 1) Specifically, the PHC prediction shall include an estimate of the impact of the mining and reclamation operations upon the dissolved and suspended solids, total iron, total manganese and pH of the surface and ground water.
- 2) In the event it is determined that off-site water quantity cannot be protected from adverse affects of the proposed surface mining operations, the applicant shall identify an alternative source of water supply of at least equal quality and quantity that can be developed to replace the existing one.

Applicant: Quality Coal Co., Inc.
Mine Name: Sparks Branch Mine No. 2
Permit Number: P-3947

I. Land Use Information

1. Describe in detail the land use(s) existing at the time of the application. Give the number of acres and describe sufficiently so the areas can be identified on a map. If necessary, include a map showing land use units. (779.22)

256 acres - undeveloped or no current use.
129 acres - previously disturbed

2. Give the applicable land use classification under local law, if any. (779.22) Not Applicable
3. Is any of the area prime farmland? (779.27,785.17)
() Yes (XXX) No

If yes, submit the information required in Section 785.17.

If no, show or state how the determination was made.

See Attachment II-I-3.

4. Has the land use of any area on the proposed permit area changed within the last 5 years? (779.22)
() Yes (XXX) No

If yes, identify those areas and describe their historic use.

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

5. Has any area within the proposed permit been previously mined?(779.22) (XXX) Yes () No

If yes, complete the following:

- a) Describe the area or shown on a map.
See Permit Map.
- b) Was the area reclaimed? () Yes (XXX) No
If yes, under what Law? () 1969 () 1975 ()
Pre-Law
- c) Describe the land use of the area prior to any mining, or if this cannot be determined, describe the land use(s) of surrounding unmined land.
(779.22)

See Attachment III-B.-2.A (Watershed Map)

6. Describe in detail, land uses of areas adjacent to the proposed permit area. (779.22)

Areas adjacent to the permit support undeveloped areas consisting primarily of pine trees and mixed deciduous trees.

7. Discuss the capability of the lands within the permit area to support a variety of land uses other than the current use. (779.22)

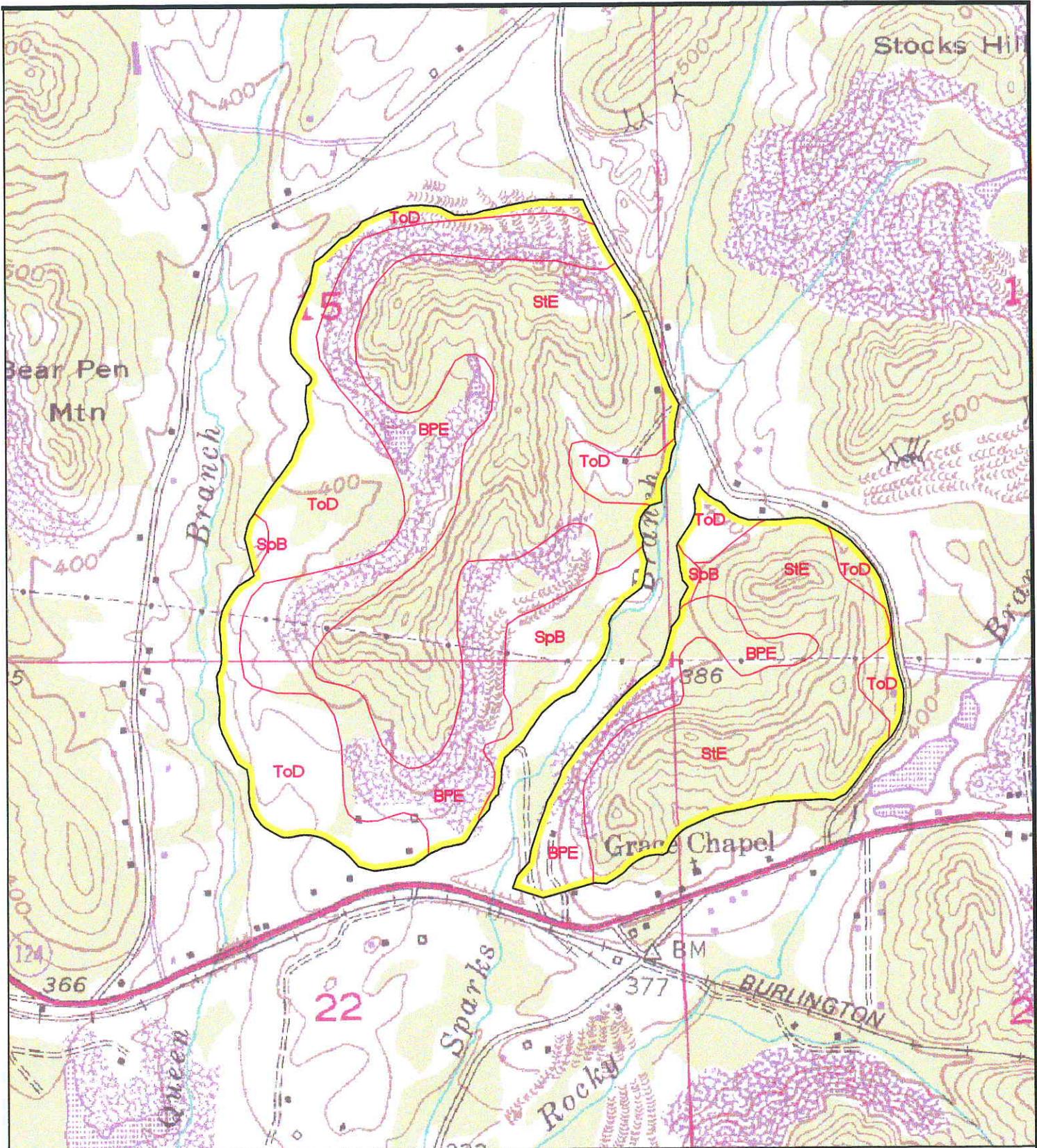
MAP SYMBOL	SOIL NAME	CORN	SOYBEANS	TALL FESCUE
StE	Sunlight-Townley	----	----	4.0 AUM
ToD	Townley	----	----	6.0 AUM
BPE	Brilliant/Palmerdale	----	----	3.5 AUM
SpB	Spadra-Whitwell	95	35	9.0 AUM

----: Not Rated

BU: Bushel

AUM: Animal-Unit-Month

Map Symbol	Soil Type	Site Index	Species
ToD	Townley	80	Loblolly Pine
StE	Sunlight-Townley	70	Loblolly Pine
BPE	Brilliant/Palmerdale	120	Loblolly Pine
SpB	Spadra-Whitwell	95	Loblolly Pine



MAP LEGEND

- Proposed Permit Area
- ToD Soil Type



**Quality Coal Co., Inc.
Sparks Branch Mine No. 2
Soil Map**

DRAWN BY: JNG	DATE: 3-15-10
DWG. NAME: QCSB2soil	
APPROVED BY: TST	SCALE: 1"=1000'



Base map taken from the Jasper, Alabama USGS Quadrangle.

C:\Users\jng\Documents\Sparks Branch Mine No. 2\Soil Map.dwg 3/15/10 10:25

Applicant: <u>Quality Coal Co., Inc.</u>
Mine Name: <u>Sparks Branch Mine No. 2</u>
Permit Number: <u>P-</u>

J. Vegetative Information

Delineate on a map, or describe in detail, the existing plant communities within the proposed permit area (and adjacent areas, if required). List the predominate overstory, understory, and ground cover species (use common name only). Give approximate acreage covered by each plant community and approximate age of timber stands. (779.19)

The pre-mining landuse within the proposed permit area consists of undeveloped or no current use and previously mined areas.

The previously disturbed areas within this area have been naturally revegetated and the only overstory which exists within these areas consists of different species of pine trees. Other vegetation which exists within these areas consists of tall fescue, kudzu, shoemake, greenbriar, sawbriar, broom sedge, blackberry, mimosa, sicklepod, dog fennel, black nightshade, and crabgrass. The undeveloped or no current use areas are typical pine / deciduous forest areas where the dominant overstory is a mixture of typical deciduous and pine species. Species are as follows: red oak, white oak, post oak, hickory, beech, sweet gum, yellow and tulip poplar, virginia pine, buttermilk pine, loblolly pine, and cedar. Understory in these areas consists mainly of dogwood, redbud, mimosa, and muskiedine. Ground cover in these areas consists mainly of immature species mentioned above and fallen leaves from the above species, but also includes sawbriar, kudzu, and mullein.