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29 May 2012

Mr. Keith Madison
Drummond Company, Inc.
3000 Highway 78 East
Jasper, Alabama 35501

Dear Mr. Madison:

This letter is my report of findings from a study to determine if any habitat for the federally listed Indiana bat (*Myotis sodalis*) occurs on approximately 82 acre site of the proposed Shannon Mine #2 in Jefferson County, Alabama. As requested, I conducted a survey on May 26, 2012. No bats were observed in the study area and no suitable habitat was available, therefore, no impacts to are expected from the project.

The site is northeast of Abernant and located south of Johns Road along Blue Creek Road. The area is in a rural setting and contains previously mined areas. It occurs in the Warrior Basin district of the Cumberland Plateau.

Habitat Description

Most of the site been logged in the past and the vegetation when present is a secondary growth forest. The forested area consists of loblolly pine (*Pinus taeda*) with a hardwood understory. Common understory trees include sweetgum (*Liquidambar styraciflua*), southern red oak (*Quercus falcata*), chestnut oak (*Quercus montana*), white oak (*Quercus alba*), black jack oak (*Quercus marilandica*), post oak (*Quercus stellata*), black oak (*Quercus velutina*), and mockernut hickory (*Carya tomentosa*) trees are black gum (*Nyssa sylvatica*), red maple (*Acer*

rubrum), sourwood (*Oxydendrum arboreum*), persimmon (*Diospyros virginiana*), black cherry (*Prunus serotina*), red bud (*Cercis canadensis*), sassafras (*Sassafras albidum*), red cedar (*Juniperus virginiana*), flowering dogwood (*Cornus florida*) and mimosa (*Albizia julibrissin*).

Shrubs, vines and groundcover that are often encountered include Chinese privet (*Ligustrum sinense*), winged sumac (*Rhus copallinum*), highbush blackberry (*Rubus trivialis*), southern dewberry (*Rubus trivialis*), muscadine grape (*Vitis rotundifolia*), Virginia creeper (*Parthenocissus quinquefolia*), poison ivy (*Toxicodendron radicans*), greenbriers (*Smilax* spp.), Japanese honeysuckle (*Lonicera japonica*), bracken fern (*Pteridium aquilinum*) and witchgrasses (*Dichanthelium* spp).

Threatened and Endangered Species

The Indiana bat closely resembles the little brown bat (*Myotis lucifugus*) but differs in coloration. Its fur is dull gray to chestnut rather than bronze, with the basal portion of the hairs of the back dull lead colored. This bat's belly is pinkish to cinnamon, and its hind feet smaller and more delicate than in little brown bat. No species of bats were observed or habitat located in the study area. The Indiana bat require caves or rock shelters for its hibernacula in the winter and usually larger trees with exfoliating bark or old dead to dying trees for summer roosting. The Indiana bat migrates to foraging areas from it hibernacula in the summer and will hibernate in caves during the fall and winter. The habitat of the site was poor for summer roosting and no caves or rock shelters were observed. The rock type in the area rarely has this kind of geologic features. They are mostly found in the limestone regions of northeast Alabama.

Additional Studies And Mitigation Recommendations

Based on literature review and a field survey of the project site, no additional studies are required to be in compliance with state and federal endangered species laws associated with project impacts to Threatened & Endangered species.

It is recommended that appropriate Best Management Practices (BMPs) be applied to minimize siltation and in-stream disturbance to sediments. The guidelines and procedures in the following publication, "Best Management Practices for Erosion and Sediment Control" (Roberts 1995. Eastern Federal Lands Highway Design, Federal Highway Administration Report No. FHWA-FLP-94-005, 21400) can help to mitigate impacts to water quality in the project area.

Sincerely,

Daniel D. Spaulding

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Environmental Consultant

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Attachments

Map of Study Area



- LEGEND**
- CURRENT PERMIT AREA
 - PROPOSED AREA TO BE ADDED
 - PREVIOUSLY DISTURBED

DRUMMOND COMPANY, INC.
 P.O. BOX 1649 JASPER AL 35502
 205-867-9501 OFFICE

**SHANNON, LLC
 SHANNON MINE NO. 2
 SITE LOCATION MAP**

Part of Sections 21, 22, 27, 28, 29, 31, 32, & 33.
 Township 10 South, Range 5 West,
 Jefferson County, Alabama

| | |
|----------------------|-----------------|
| DRAWN BY: HOCUTT | DATE: 3-15-12 |
| DWG. NAME: SML2-SLM1 | |
| APPROVED BY: W.K.M. | SCALE: 1"=2000' |

IMAGE OF AREA

