

**BLACK WARRIOR MINERALS, INC.  
MINE NO. 1, P-3950, R-5**

**BLACK WARRIOR MINERALS, INC.**

**MINE NO. 1**

ALABAMA SURFACE MINING COMMISSION  
SURFACE MINING PERMIT APPLICATION

**P A R T   I I**

Prepared by:

**MCGEHEE ENGINEERING CORP.**

P. O. Box 3431  
450 19th Street West  
Jasper, Alabama 35502-3431  
Telephone (205) 221-0686

**PART II - Environmental Resources Information**

**A. Fish, Wildlife and 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)]

[SEE ATTACHED FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN](#)

- (2) Describe in detail the measures to be taken to restore or enhance, or steps to be taken to avoid disturbance of, habitats of unusually high value for fish and wildlife located within the proposed permit area.[780.18(b)(6), 816.97(d)(2)]

[SEE ATTACHED FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN](#)

- (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)(6), 816.97(d)(3&4)] ( ) Yes. (XX) No.

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

[SEE ATTACHED FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN](#)

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.

Not Applicable - None Proposed

- (4) Is fish and wildlife habitat to be primary or secondary post-mining land use? [780.18(b)(5)]  
( ) Yes (XX) 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.

**BLACK WARRIOR MINERALS, INC.**  
**MINE NO. 1, P-3950, R-5**

- (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)]

**SEE ATTACHED FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN**

- (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.

Not Applicable.

**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 resources(s). (779.12, 780.14, 780.31)

All of the area being added by R-5 located in Section 9 was studied and cleared by the AHC with the original permit. [See AHC Original Approval 6-23-2010.](#)

[See AHC Re-Concurrence 6-9-14.](#)

- (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)

No significant archeological sites are located in or adjacent to the proposed permit area.

**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)

All of the area being added by R-5 located in Section 9 was studied and cleared by the USF&W with the original permit. [See USF&W Original Approval 6-17-2010.](#)  
See [ADCNR Response 1-27-2014.](#)

[See USF&W Re-concurrence 6-30-14.](#)

**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?

( ) Yes (XX) No (778.16)

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)

Not Applicable - No Parks within or Adjacent to permit area.

- (3) Are requests for waiver included in this application? (761.12)

( ) Yes (XX) No

- (4) Do you claim exemption to this part based upon: ( ) YES (XX) No

(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)]

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

E. Geology (880-X-8E-.06(2))

*No change from original permit.*

F. Groundwater Hydrology (880-X-8E-.06(1))

[SEE Addendum to ATTACHMENT II-F](#)

G. Surface Water Hydrology. (880-X-8E-.06(1))

[SEE Addendum to ATTACHMENT II-G](#)

H. Probable Hydrologic Consequences Determination 880-X-8E-.06(1)(f)

[SEE Addendum to ATTACHMENT II-H](#)

I. Hydrologic Reclamation Plan (880-X-8E-.06(h))

[SEE Addendum to ATTACHMENT II-I](#)

**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 that areas can be identified on a map. If necessary, include a map showing land use units. (779.22)

<u>Increment</u>	<u>Area</u>	<u>Land Use</u>
1	78.0 Acres	Undeveloped/No Current Use
2	87.0 Acres	Undeveloped/No Current Use
3	92.0 Acres	Undeveloped/No Current Use
4	32.0 Acres	Undeveloped/No Current Use
5	37.0 Acres	Undeveloped/No Current Use
6	28.0 Acres	Undeveloped/No Current Use

TOTAL PERMITTED ACRES = 354

**BLACK WARRIOR MINERALS, INC.**  
**MINE NO. 1, P-3950, R-5**

(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 (XX) No

If yes, submit the information required in Section 785.17.

If no, show or state how the determination was made. None of the area being added by Revision R-5 is prime farmland. All of the area being added by Revision R-5 is of the Montevallo-Nauvoo Association - Steep.

See Attachment II-I(3), [Soils Map](#)

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

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

**BLACK WARRIOR MINERALS, INC.**  
**MINE NO. 1, P-3950, R-5**

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

If yes, complete the following:

- (a) Describe the area or show on a map.

See [Permit Map](#)

- (b) Was the area reclaimed?    Yes    No

If yes, under what law?    1969,    1975,    Interim 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)

The previously mined area (as well as can be determined) with the permitted area is made up of undeveloped/no current use.

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

The area adjacent to the proposed permit area is made of previously mined are and undeveloped/no current use.

**BLACK WARRIOR MINERALS, INC.**  
**MINE NO. 1, P-3950, R-5**

(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)

<b>Soil Type</b>	<b>Corn Bu</b>	<b>Soybeans Bu</b>	<b>Tall Fescue AUM</b>	<b>Grass Hay TN</b>
29	--	--	5.5	3.5
30	75	30	7.0	4.5
35	--	--	--	--
39	116	39	9.5	5.5

--: Not Rated  
AUM: Cow - Acre - Days  
BU: Bushels  
TN: Tons

Data obtained from the Jefferson County Soil Conservation Service.

**BLACK WARRIOR MINERALS, INC.  
MINE NO. 1, P-3950, R-5**

(8) Give the premining productivity of the proposed permit area based on actual yield data or estimates based on data from similar sites. (If estimates, give sources of data used.) (779.22)

See Attachment II-I-(3), [Soils Map](#)

<b>SOIL TYPE</b>	<b>MAP SYMBOL</b>	<b>SITE INDEX</b>	<b>SPECIES</b>
Montevallo-Nauvoo Association Steep	29	80	Loblolly
** Nauvoo Fine Sandy Loam 2 to 8% slopes	30	89	Loblolly
Palmerdale Complex Steep	35	80	Loblolly
Sullivan-State Complex 0 to 2% slopes	39	70	Loblolly

\*\* Prime Soils

Data obtained from the Jefferson County Soil Conservation Service.

**J. Vegetation 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 predominant 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 proposed permit area consist of unmanaged timberland and previously mined land. The majority of the permit area will be clearcut, removing all the merchantable pine and hardwood timber. This eliminated the overstory and understory leaving only small, nonmerchantable pine and hardwood trees. Pine species are virginia and loblolly. Hardwood species are oaks, sweetgums, yellow poplar, birch and hickories. Due to the removal of the overstory and understory, a dense ground cover has developed consisting of sage and various grasses, weeds, vines, briars, and pine and hardwood seedlings.