

**MAYS MINING, INC.**  
**KANSAS MINE NO. 2, P-3936, R-4**

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ALABAMA SURFACE MINING COMMISSION  
SURFACE MINING PERMIT APPLICATION

**PART III**

Prepared By:

**SIMMONS-JOHNSEY ENGINEERING, LLC**  
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Jasper, Alabama 35501  
Telephone: (205) 522-2057

**PART III – OPERATION PLAN**

**A. General Operation Information**

1. Describe the type and method of coal mining procedures and major equipment to be used. (780.11)

**See Attachment III-A-1**

2 Track-hoe	4 Blast hole drill
8 Rock trucks	2 Fuel and service truck
4 Loaders	6 Dozers

2. Describe the sequence and timing of increments to be mined (as shown on permit map) over the total life of the permit. (780.11)

The timing increments are as follows:

<u>Increment No.</u>	<u>Acres</u>	<u>Dates</u>	
		<b>To</b>	<b>From</b>
1	105.0	Effective Date *	12 Months After
2	86.0	Effective Date	12 Months After

\* The Effective Date depends on the date of issuance of permit.

The sequence of mining operations will be generally as follows:

- 1) Construction of sediment control structures
- 2) Clearing and grubbing
- 3) Topsoil removal, if required
- 4) Overburden drilling and blasting
- 5) Overburden removal
- 6) Coal Recovery
- 7) Grading
- 8) Revegetation

**B. Engineering Plans**

All cross sections, maps and plans related to operations, reclamation and structures must comply with Section 780.10. Plans, appropriate calculations and conclusions shall be presented in a clear and logical sequence and shall take into account all applicable factors necessary to evaluate the proposed plan or design.

1. Existing Structures. (780.12, 786.21)

- (a) Describe each existing structure to be used, its location, current condition, approximate dates of construction and evidence (including relevant monitoring data) showing whether or not the structure meets the performance standards of Subchapter K or Subchapter B, whichever is more stringent and demonstrate whether or not the use of existing structures will pose a significant harm to the environment or public health and safety.

Not Applicable

- (b) If an existing structure requires modification or reconstruction to meet the performance standards, attach a compliance plan that includes design specifications, construction schedule, monitoring procedures, and evidence that the risk of harm to the environment or public health or safety is not significant during modification or reconstruction.

Not Applicable

**MAYS MINING, INC.**  
**KANSAS MINE NO. 2, P-3936, R-4**

2. Ponds, impoundments, banks, dams and embankments. (780.25)

- (a) Submit a general plan which complies with Section 780.25 (a)(1) for each proposed sedimentation pond, water impoundment, and coal processing waste bank, dam or embankment to be located within the proposed permit area.

See attachment III-B-2(a)

- (b) Submit detailed design plans, which comply with Sections 780.25 (a)(2&3) and 816.46, for each sedimentation pond to be constructed on the increment you currently propose to mine. If the sediment pond is to remain as a permanent water impoundment, design plans shall also comply with Section 816.49.

NA

- (c) Submit detailed design plans, which comply with Sections 780.25 (a)(2&3) and 816.49, for each temporary or permanent water impoundment to be constructed on the increment you currently propose to mine.

NA

- (d) Submit detailed design plans, which comply with Sections 780.25 (a)(2&3) and 816.81-816.85, for coal mine waste bank to be constructed on the increment you currently propose to mine.

NA

- (e) Submit detailed design plans, which comply with Sections 780.25 (a)(2&3) and 816.91-816.93 for each coal mine waste dam and embankment to be constructed on the increment which you currently propose to mine.

NA

**MAYS MINING, INC.  
KANSAS MINE NO. 2, P-3936, R-4  
ATTACHMENT III-B-2(a)**

**GENERAL ENGINEERING PLAN CERTIFICATION STATEMENT**

I, Bradley K. Simmons, a registered professional engineer, hereby certify that the information, cross-sections, data, maps, etc., contained in this general plan in Attachment III-B-2(a) is true and correct to the best of my knowledge and belief.

**Simmons-Johnsey Engineering, LLC**

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Bradley K. Simmons, P.E.  
Alabama Reg. No. 33277

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Date

**MAYS MINING, INC.**  
**KANSAS MINE NO. 2, P-3936, R-4**  
**ATTACHMENT III-B-2(a)**

**ADDENDUM TO THE GENERAL PLAN**

This amendment to the General Plan consists of deleting Sediment Basin 002 and Sediment Basin 003. Neither basin has been constructed or certified. This addendum also proposes to add Sediment Basin 004.

**Sediment Basin 004**

Sediment Basin 004 is being proposed to control disturbed runoff from the proposed reclamation operations within its drainage area. Detailed Design plans are forthcoming. Areas of the pool area located in the spoil material will be lined with a clay liner up to the emergency spillway elevation to ensure that the impoundment retains water. See attached [Typical Clay Liner](#).

Sediment Basin 004 currently does not have an ADEM outfall and the current ADEM permit is expired. ADEM recommended that a General Stormwater permit be used to address basin 004. The ADEM General Stormwater is forthcoming.

**GENERAL DESIGN DATA**

<b>SEDIMENT BASIN</b>	<b>LOCATION</b>	<b>DRAINAGE AREA ACRES</b>
004	NW/NE of Section 14, T13S, R10W	91

Sediment Basin 004 is located in Winston County, Alabama and is found on the Carbon Hill quadrangle.

## **SEDIMENT BASIN CONSTRUCTION SPECIFICATIONS**

Sediment basins (temporary or permanent) will be designed and constructed using the following as minimum specifications:

### **EMBANKMENT REQUIREMENTS**

1. The minimum width of the top of the embankment shall be no less than twelve (12) feet.
2. The embankment will have a minimum front and back slope no steeper than the slopes shown on the detailed design sheet.
3. The foundation area of the embankment will be cleared and grubbed of all organic matter with no surface slope steeper than 1 horizontal to 1 vertical. The entire wet area, as measured from the upstream toe of the embankment to the normal pool level, will be cleared of trees and large brush.
4. A core will be constructed in a cutoff trench along the centerline of the embankment. The cutoff trench will be of suitable depth and width to attain relatively impervious material.
5. The embankment construction material will be free of sod, roots, stumps, rocks, etc., which exceed six (6") inches in diameter. The embankment material will be placed in layers of twelve (12") inches or less and compacted to ninety-five (95%) percent of the standard proctor density, as set forth in ASTM.
6. The embankment, foundation and abutments will be designed and constructed to be stable under normal construction and operating conditions, with a minimum static safety factor of 1.3 at normal pool level with steady seepage saturation conditions.
7. The actual constructed height of the embankment will be a minimum of five (5%) percent higher than the design height to allow for settling over the life of the embankment.
8. The design embankment height for temporary impoundments will be a minimum of one (1') foot above the maximum water level anticipated from the 10 Year-24 Hour or the 25 Year-6 Hour precipitation event (whichever is greater). The design embankment height for permanent impoundments will be a minimum of one (1') foot above the maximum water level anticipated from the 10 Year-24 Hour or the 25 Year-6 Hour precipitation event (whichever is greater).
9. For embankments constructed as point source discharges, the embankment will be constructed and keyed into undisturbed, virgin, ground if at all possible. In the event that this cannot be achieved, additional design and construction specifications will be submitted in the detailed design plans.

**MAYS MINING, INC.**  
**KANSAS MINE NO. 2, P-3936, R-4**  
**ATTACHMENT III-B-2(a)**

10. The embankment and all areas disturbed in the construction of the embankment will be seeded with a mixture of perennial and annual grasses, fertilized and mulched to prevent erosion and ensure re-stabilization. Hay dams, silt fences, rock check dams, etc. will be installed, where deemed necessary, as additional erosion prevention methods.

**DISCHARGE STRUCTURE REQUIREMENTS**

11. The primary spillway will be designed to adequately carry the anticipated peak runoff from the 10 Year-24 Hour precipitation event. The combination primary and secondary (emergency) spillway system will be designed to safely carry the anticipated peak runoff from a 25 Year-6 Hour precipitation event. When sediment basins are proposed in the drainage course of a public water supply, the spillway system will be designed and constructed to adequately carry the runoff from the 50 Year-24 Hour precipitation event.
12. Channel linings, for secondary (emergency) spillways will be a trapezoidal open channel constructed in natural ground and planted with a mixture of both annual and perennial grasses being predominantly fescue and Bermuda. In the event that the spillway cannot be constructed in natural ground, the spillway will be lined with riprap, concrete, asphalt or durable rock (See Detailed Design Plans for Spillway Lining).
13. When consisting of pipe, the primary spillway will be installed according to Class "C" pipe installation for embankment bedding.
14. Sediment basins with a single spillway system, such as a skimmer board, will be a trapezoidal open channel constructed in consolidated, nonerodable material and lined with rip-rap, concrete, asphalt or durable rock (See Detailed Design Plans for Spillway Lining).
15. The primary spillway will be designed and constructed with device to eliminate floating solids from leaving the impoundment. This device will consist of a turned down elbow when using pipe or a skimmer system when using an open channel spillway.
16. When necessary, to prevent erosion of the embankment or discharge area, a splash pad of rip-rap, durable rock, sacrete, etc. will be installed at the discharge end of the primary spillway.
17. The combined spillway systems, for sediment basins constructed in series, will be designed to adequately accommodate the entire drainage area.

**INSPECTION, MAINTENANCE AND CERTIFICATION REQUIREMENTS**

18. Inspections will be conducted regularly during construction of the sediment basin by a qualified registered professional engineer or other qualified person under the direction of a professional engineer. Upon completion of construction, the sediment basin will be certified, by a qualified registered professional engineer, to the Regulatory Authority as having been constructed in accordance with the approved detailed design plans.
19. Sediment basins will be inspected semi-monthly for erosion, instability, etc., with



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**KANSAS MINE NO. 2, P-3936, R-4**  
**ATTACHMENT III-B-2(a)**

maintenance performed as necessary, until the removal of the structure or until a Phase III Bond Release is granted.

20. Sediment basins will be examined quarterly for structural weakness, instability, erosion, slope failure, or other hazardous conditions with maintenance performed as necessary.
21. Formal inspections will be made annually, by a qualified registered professional engineer or other qualified person under the direction of a professional engineer, including any reports or modifications, in accordance with 880-X-10C-.20[1(j)] of the Alabama Surface Mining Regulations.
22. Retained sediment will be removed from each sediment basin when the accumulated sediment reaches the maximum allowable sediment volume as set forth in the detailed design plans.
23. The basin will be certified as constructed to the Regulatory Authority within 90 days after the start of construction of the respective basin unless an extension is granted by the Director.

**BASIN REMOVAL REQUIREMENTS**

24. Upon completion of mining, reclamation, re-stabilization and effluent standards being met, each sediment basin not proposed as a permanent water impoundment will be dewatered in a controlled manner by either pumping or siphoning. Upon successful dewatering, a determination will be made as to the retained sediment level in the basin. After determining the retained sediment level, a channel will be cut into the embankment down to the retained sediment level on the side of the embankment deemed most suitable to reach natural ground without encountering prohibited rock. The embankment material removed from this newly constructed channel will be spread and compacted over the previous impoundment (pool area) to prevent erosion and ensure re-stabilization. The newly constructed channel will be designed to safely carry the anticipated peak runoff from a 10 Year-6 Hour precipitation event. The channel will be lined with riprap, concrete, asphalt or durable rock. Upon removal of the embankment section, all disturbed areas will be graded in such a manner to ensure slope stability, successful re-stabilization and to minimize erosion. All disturbed areas will be seeded with a mixture of annual and perennial grasses, fertilized and mulched. No slope, existing or created in the removal of the sediment basin, will be left on a grade that will slip or slough.

**PERMANENT WATER IMPOUNDMENT REQUIREMENTS**

25. Prior to a request for a Phase II Bond Release, all sediment basins being left as permanent water impoundments will have supplemental data submitted to the Regulatory Authority concerning water quality, water quantity, size, depth, configuration, postmining land use, etc.
26. Final graded slopes of the entire permanent water impoundment area will not exceed a slope of 2 Horizontal to 1 Vertical to provide for safety and access for future water users.

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**ATTACHMENT III-B-2(a)**

**TYPICAL EMBANKMENT DRAWING**

[Typical Sediment Basin Planview](#)

[Typical Embankment Cross Section](#)