

Applicant: <u>WB Mining, LLC</u> Mine Name: <u>Fishtrap Mine No. 2</u> Permit Number: <u>P-3930, Revision R-3</u>

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.

Major equipment to be used includes but may not be limited to:

- Track Backhoes
- Bulk Anfo Trucks
- Dozers
- Drills
- Service Trucks
- Off Road Haulers
- Loaders
- Marion 7820 Dragline

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>From</u>	<u>Estimate of Life</u>
1	244	Currently being Mined	24 Months
2	168	End of Increment #1	12 Months
3	143	End of Increment #2	12 Months
4	29	End of Increment #3	12 Months
6	13	Life of Mine	

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) Removal marketable shale material
- 5) Overburden Drilling and Blasting
- 6) Overburden Removal
- 7) Coal Recovery
- 8) Clay Recovery
- 9) Re-Grading
- 10) Revegetation

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ATTACHMENT III-A-1

TYPE AND METHOD OF COAL MINING PROCEDURES

The area method of surface mining will be used. Preparation will consist of: (a) timber removal (b) topsoil removal (if required) (c) drilling and blasting of overburden (d) overburden removal (e) coal removal (f) regrading and revegetation. Once the site has been regraded and the topsoil has been replaced, if required, soil samples will be collected and analyzed, where required, and proper nutrients will be added before re-vegetation. All Primary and Ancillary Roads shown within the Mining Increments will be mined thru once the Increment is Bonded for mining and mining progresses to the road location. All Power lines and Gas lines within the Permit Boundary will be relocated prior to mining within 100 feet of the lines. Any problem that may arise will be handled by proper consulting personnel utilizing various support equipment and support personnel.

Upon issuance of Revision R-3, the mining of Increment No. 1 will commence at two locations simultaneously. Location #1 will commence at the current highwall located within the SW/SW of Section 34 as shown on the Operations Map. Pits will generally align northwest to southeast with advancement to the northeast. Spoil material from the initial cuts will be placed in previous open pits and spoil material from the next cuts will be placed within subsequent open pits. Mining will continue within location #1 until the northern extent of Increment No. 1 are reached. Location #2 will be a continuation of mining of P-3765 as shown in Revision R-20. Mining on P-3765 will commence on the north end of Increment No. 1 as shown on the Operations Map. Pits will generally align northwest to southeast with advancement to the southwest. Spoil material from the initial cuts will be placed in previous open pits of P-3765 and spoil material from the next cuts will be placed within subsequent open pits. Mining will continue in this manner and include Increment No.2, to be mined simultaneously, as the cuts enter Section 3 on the East end of Location #2. This simultaneous mining of Increments No. 1 & No. 2 will continue until the limits of Increment No. 1 are reached. Revision R-20 of P-3765 addresses receiving spoil material from P-3930. See the Notes in the Detailed Design Plans for Basins 009B, 009AE Re-evaluation and 009E Re-evaluation Phase I & II for Basin construction timing.

Elbo Porter Road is closed and the Right of Way Vacated from Short Creek Road going to the South past Forrester Road approximately 2 miles. The entire length of Forrester Road is closed and the Right of Way Vacated. See Attachment III-B-5(a) for both roads. The

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Permit Boundary of P-3930 and P-3765 are one in the same between Short Creek Road and Forrester Road as shown on the Permit Map.

A twenty four (24) month delay in contemporaneous reclamation will be requested from the Director for the southeast ends of each cut of location #1 within Increment No. 1 located within the SW/SW and SE/SW of Section 34. The southeast ends will remain open until mining progresses from the north within location #2. See letter to Director.

Also, a twenty-four (24) month delay in contemporaneous reclamation will be requested from the Director for the final highwall of location #2 within Increment No. 2 that adjoins Increments No. 2 & No. 3 located within the NE/NW, NW/NE, and SW/NE of Section 3. The final highwall will remain open until mining is completed within Increment's No. 2 and No. 3 at which time the highwall will be eliminated by mining. See letter to Director.

Simultaneous mining of Increment No. 2 & No. 1 will continue until the direction of mining in Increment No. 2 changes near monitoring well WBF2MW-3 in the NE/NW of Section 3. Mining of Increment No. 2 will change to commence along the existing highwall located on the west side of Increment No. 2 north of Basin 010P and with a box cut on the portion south of Basin 010P contained in Increment No. 2 as shown on the Operations Map. Pits will generally align northeast to southwest with advancement to the southeast. Spoil material from the initial cuts will be transported via mobile equipment and placed in previous open pits of Increment No. 1 and spoil material from the next cuts will be placed within subsequent open pits. The normal pool area of Basins 009, 009A, 010 and 012 will be mined thru. Basins 009E and 009AE have the American Seam in place under the Basins. The embankments and spillway systems will not be disturbed during the mining of the pool areas. During the mining of the pool areas all drainage will be captured in the open pit and pumped to the nearest ASMC approved and certified sediment basin prior to discharge. Once mining has progressed three (3) cuts past the pool area of the basins, the pool areas will be reconstructed, lined with 1.0 feet (minimum) of clay material with a permeability no greater than 1×10^{-6} cm/sec up to the normal pool elevation to minimize infiltration and to provide a stable pool level. The material will be placed in horizontal lifts not to exceed 6 inches and compacted to 95% of the standard proctor. Upon completion of the re-construction of the pool area each Basin will be certified to the ASMC that re-construction of the pool areas was completed according to the approved design plans. Mining will continue in this manner until the limits of the increment are reached.

A twenty-four (24) month delay in contemporaneous reclamation will be requested from the Director for the southwest ends of each cut

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within Increment No. 2 located within the SW/SE and SE/SE of Section 4. The southwest ends will remain open until mining commences within Increment No. 4. See letter to Director.

Mining of Increment No. 3 will be a continuation of mining of Increment No. 2. Pits will generally align northeast to southwest with advancement to the southeast. Spoil material from the initial cuts will be placed in previous open pits and spoil material from the next cuts will be placed within subsequent open pits. Mining will continue in this manner until the limits of the increment are reached.

A twelve (12) month delay in contemporaneous reclamation will be requested from the Director for the southwest ends of each cut that are adjacent to Increment No. 4 within Increment No. 3 located within the SE/SE of Section 4. The southwest ends will remain open until mining commences within Increment No. 4. See letter to Director.

The mining direction will change with the commencement of mining within Increment No. 4. Mining of Increment No. 4 will commence at the open highwall from the southwest ends of cuts from Increment's No. 2 and No. 3. Pits will generally align northwest to southeast with advancement to the southwest. Spoil material from the initial cuts will be placed in previous open pits and spoil material from the next cuts will be placed within subsequent open pits. Mining will continue in this manner until the limits of the increment are reached.

The pool area of Basin 011 will be mined through as mining advances within Increment No. 4. The embankment and spillway system will not be disturbed during the mining of the pool area. During the mining of the pool areas all drainage will be captured in the open pit and pumped to the nearest ASMC approved and certified sediment basin prior to discharge. Once mining has progressed three (3) cuts past the pool area of the basin, the pool areas will be reconstructed, lined with 1.0 feet (minimum) of clay material with a permeability no greater than 1×10^{-6} cm/sec up to the normal pool elevation to minimize infiltration and to provide a stable pool level. The material will be placed in horizontal lifts not to exceed 6 inches and compacted to 95% of the standard proctor. Upon completion of the re-construction of the pool area each Basin will be certified to the ASMC that re-construction of the pool areas was completed according to the approved design plans. See Attachment III-A-1, Operations Map for cut layout information.

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3. Attach a narrative explaining the construction modification, use, maintenance, and removal of the following facilities:
(780.11)
 - (a) Coal removal, handling, storage, cleaning and transportation structures and facilities.

Additional Best Management Practices (BMP's) consisting of silt fences, hay bales, rock check dams or sumps will be used for sediment control of runoff from coal stockpiles prior to entering sediment basins.

See Attachment III-A-3(a), BMP Typical.

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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 and 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.

See attachment III-B.-2.A

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

See attachment III-B.-2.A

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

None proposed.

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

None proposed.

3. Diversions. (780.29,816.43, 816.44)

Are diversions of overland flow or stream channel diversions proposed?

(XXX) Yes () No

If yes, complete the following:

- (a) Is the diversion to be permanent?
() Yes (XXX) No

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Attachment III-B-2(a)

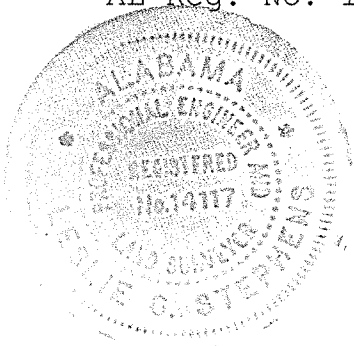
CERTIFICATION STATEMENT:

I hereby certify that Attachment III-B-2(a) prepared for WB Mining, LLC's Fishtrap Mine No. 2, is in accordance with the Regulations of the Alabama Surface Mining Commission as adopted by Act 81-435 of December 18, 1981 and amended to date, and is true and correct to the best of my knowledge and belief.



Leslie G. Stephens, P.L.S. & P.E.
AL Reg. No. 14117-E

10/23/2013
Date



Applicant: <u>WB Mining, LLC</u>
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Attachment III-B-2(a)

ADDENDUM TO THE GENERAL PLAN

The addendum to the general plan consists of the addition of Basin 009BP, the re-evaluation of Basins 009E & 009AE, and the modification of Basin 006E. Basin 009BP is to remain as a permanent water impoundment, fish and wildlife habitat. Prior to a request for Phase II bond release, data to qualify the basin as a permanent water impoundment will be submitted to the regulatory authority. Modifications to Basin 006E consist of raising the sediment removal elevation to elevation 107.3 for the additional disturbed acres to be added by Revision R-3 (no field modifications will be required). No modifications are required for Basins 009E and 009AE. The normal pool area of Basins 009 and 009A will be mined thru. Basins 009E and 009AE have the American Seam in place under the Basins. The embankments and spillway systems will not be disturbed during the mining of the pool areas. During the mining of the pool areas all drainage will be pumped to the nearest certified sediment basin prior to discharge. Once mining has progressed three (3) cuts past the pool area of the basins, the pool areas will be reconstructed, lined with 1.0 foot of clay and certified to the reconstruction of the pool areas according to the approved design plans.

Basin 009BP will be constructed and certified to the Regulatory Authority in two phases. Phase I will consist of constructing the embankment and spillway system as per the approved detailed design plans. The pool area of Phase I will consist of the current open pit within Increment No. 1. The minimum pool area volume as required by the detailed design plans will be maintained until Phase II construction. Phase II will consist of reconstructing the Basin in spoil material then lining the pool area with 1.0 foot of clay. See the Notes in the Detailed Design Plans for Basins 009B, 009AE Re-evaluation and 009E Re-evaluation Phase I & II for Basin construction timing.

Basin 009BP Phase I will be constructed and certified to the Regulatory Authority prior to commencement of mining on the next cut after the current cut within location #1 as shown on the Operations Map. Also, Basin 006E will be modified and certified to the Regulatory Authority prior to commencement of mining within location #1 as shown on the Operations Map. No field work is required for Basin 006E.

The pool areas of Basins 010 and 012 will be mined through as mining advances within Increment No. 2. The embankments and spillway systems will not be disturbed during the mining of the pool areas. During the mining of the pool areas all drainage will be pumped to the nearest certified sediment basin prior to discharge. Once mining has

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progressed three (3) cuts past the pool area of the basins, the pool areas will be reconstructed, lined with 1.0 foot of clay and certified to the reconstruction of the pool areas according to the approved design plans.

The pool area of Basin 011 will be mined through as mining advances within Increment No. 4. The embankment and spillway system will not be disturbed during the mining of the pool area. During the mining of the pool area all drainage will be pumped to the nearest certified sediment basin prior to discharge. Once mining has progressed three (3) cuts past the pool area of the basin, the pool area will be reconstructed, lined with 1.0 foot of clay and certified to the reconstruction of the pool area according to the approved design plans.

Due to the pool areas of Basins 009B, 010, 011 and 012 being reconstructed in spoil material, the interior of the basins will be lined with 1.0 feet (minimum) of clay material with a permeability no greater than 1×10^{-6} cm/sec up to the normal pool elevation to minimize infiltration and to provide a stable pool level. The material will be placed in horizontal lifts not to exceed 6 inches and compacted to 95% of the standard proctor.

Geologic investigations of the area indicate layers of sandstone, siltstone, shale and minor amounts of bituminous coal and underclay. The coal to be mined by WB Mining, LLC will be the Pratt, Nickel Plate and America Coal seams of the Pratt Coal Group. The strata in the area is characterized by small scale normal faulting and gentle open folding.

All surface drainage from the proposed mining area flows into Fishtrap Branch.

All diversions are to be temporary and will be re-graded and revegetated. (See diversion ditch criteria).

No existing or proposed underground mines are known to exist within 500' of the permit boundary.

See Attachment III-B-2(a), Watershed Map.

See Attachment III-B-2(a), Basin 006E Modification Detailed Design Plans.

See Attachment III-B-2(a), Basin 009E Re-evaluation, 009AE Re-evaluation, and Basin 009BP Phase I and II Detailed Design Plans.

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Attachment III-B-2-A

<u>Basin No.</u>	<u>Location</u>	<u>Drainage Area (Acres)</u>
006E	SW/NW & NW/SW	116
009E	SW/NW	442
009AE	SW/NW	438
009BP Phase I	NE/NW	156
009BP Phase II	NE/NW	274

Located within Section 3, Township 17 South, Range 5 West, Jefferson County, Alabama, as shown on the Sylvan Springs, Alabama United States Geological Survey Quadrangle Map.

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Attachment III-B-2-A

Pond Construction Criteria

The embankment for sediment basins (temporary and permanent) shall be designed and built using the following as minimum criteria:

1. The top of the dam shall be no less than 12 feet wide.
2. See design sheet for maximum and minimum embankment slopes.
3. The foundation and abutments for the impounding structure shall be designed to be stable under all conditions of construction and operation of the impoundments, with a minimum static safety factor of 1.5 for the normal pool with steady seepage saturation conditions, and a seismic safety factor of at least 1.20.
4. The dam shall be constructed with a cutoff trench based upon prudent engineering practices for the site. The cutoff shall be located on the dam centerline and be of sufficient depth to extend into a relatively impervious material from which the core of the dam shall also be constructed.
5. The embankment foundation area shall be cleared of all organic matter, all surfaces sloped to no steeper than 1v:1h, and the entire foundation surface scarified.
6. The entire embankment and cutoff trench shall be compacted to 95 percent density, based on standard proctor as outlined in ASTM.
7. The material placed in the embankment shall be free of sod, roots, stones over 6 inches in diameter, and other objectionable materials. The fill material shall be placed and spread over the entire fill area, starting at the lowest point of the foundation, in layers not to exceed 12 inches in thickness. Construction of the fill shall be undertaken only at such times that the moisture content of the fill material will permit satisfactory compaction in accordance with paragraph 5.
8. The pool area of the basin will be cleared of timber and large undergrowth.
9. The primary decant system when consisting of a pipe shall be installed according to Class C pipe installation for embankment bedding.
10. The primary decant system shall be equipped with a device, or constructed, such as to insure that subsurface withdrawal is accomplished to prevent discharge of floating solids. If a channel is

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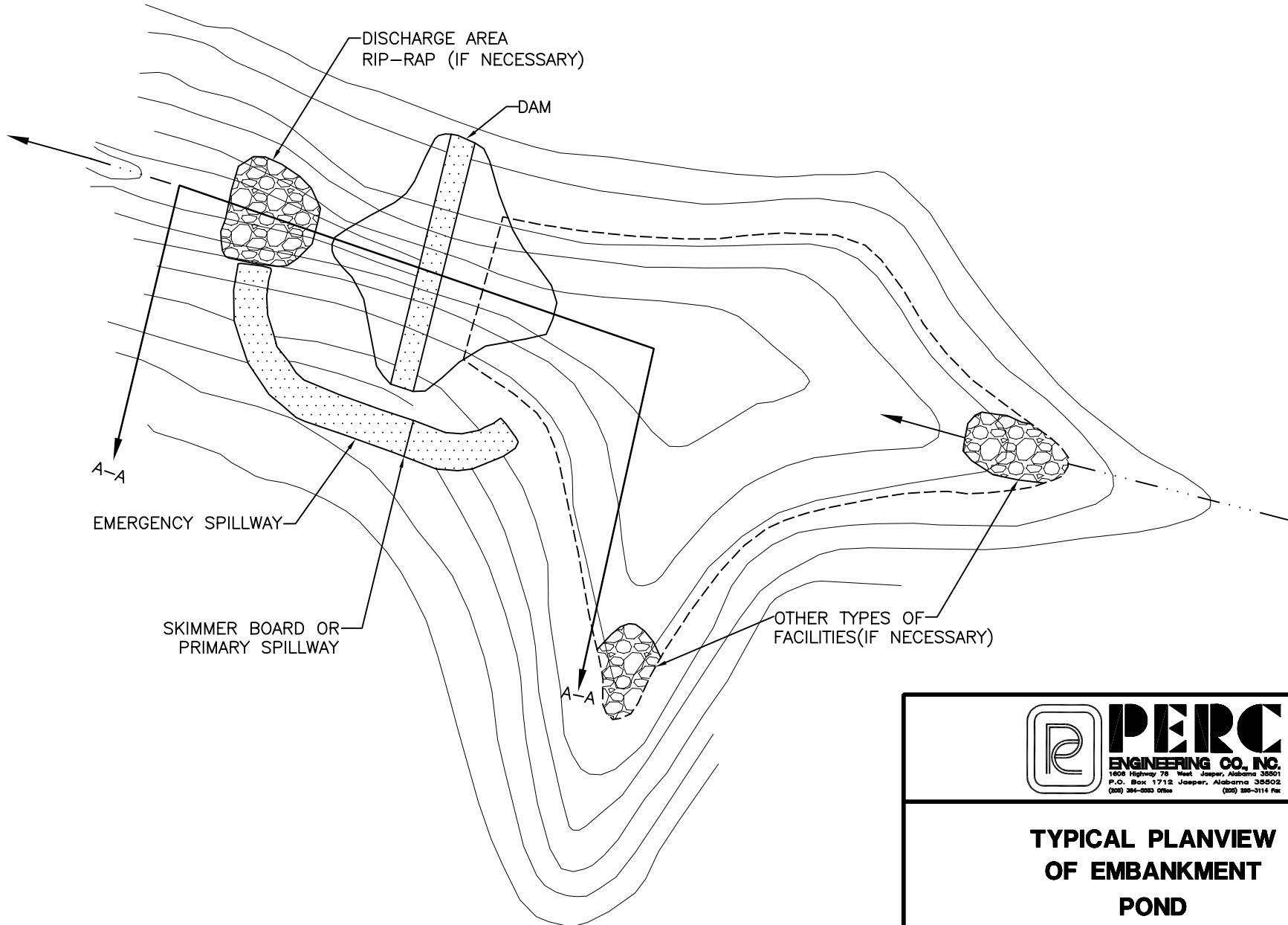
used as the primary decant a skimmer shall be installed to prevent floating solids from discharging.

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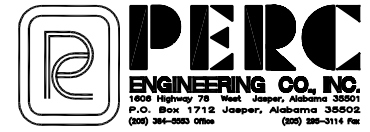
11. A splash pad or riprap may be required under the discharge of the primary decant system where necessary to insure that the discharge does not erode the embankment.
12. The combination primary and secondary decant system shall be designed to safely carry the expected peak flow from a 25 year - 6 hour storm. The entire emergency overflow spillway channel will be a stabilized channel and will be stabilized upon completion of construction as specified within the detailed design plans using prudent engineering measures. These measures may consist of lining the spillway with concrete or a durable rock riprap, or the spillway being constructed in consolidated non-erodible material and planted with a mixture or both annual and perennial grasses, or a combination of any or all of the above.
13. Sediment basins using a single spillway system shall be an open channel of non-erodible construction consisting of concrete, durable rock riprap or its being constructed in consolidated non-erodible material as specified in the detailed design plans.
14. The settled embankment for temporary impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff). The settled embankment for permanent impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff).
15. If basins are built in series, then the combined decant system for each shall be designed to accommodate the entire contributing drainage area.
16. The dam and all disturbed areas shall be seeded with both perennial and annual grasses, fertilized and mulched in order to insure erosion is minimized. Hay bales or riprap may be placed at the toe of the dam immediately upon completion of construction.
17. The constructed height of the dam shall be increased a minimum of 5 percent over the design height to allow for settlement over the life of the embankment.
18. Final graded slopes of the entire permanent water impoundment area shall not exceed 2.5H-1.0V to provide for adequate safety and access for proposed water users.
19. Prior to Phase II bond release, additional data concerning water quality, water quantity, depth, size, configuration, postmining land use, etc., for each proposed permanent water impoundment, shall be submitted to the Regulatory Authority for permanent water impoundment approval.

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20. All sediment basins will be inspected for stability, erosion, etc. two (2) times a month until removal of the structure or release of the reclamation bond.
21. The embankment and spillway will be maintained by repairing any damage such as erosion, slope failure or spillway damage until removal of the structure or release of the performance bond.
22. All ponds shall be examined quarterly for structural weakness, instability, erosion, or other hazardous conditions and maintenance performed as necessary. Formal inspections shall be made on an annual basis, including any reports or modifications, in accordance with 880-X-10C-.20[1(j)] of the Alabama Surface Mining Commission Regulations.
23. Sediment will be removed from each pond when the accumulated sediment reaches the sediment storage volume as shown on the detailed design sheet.
24. Upon completion of mining, successful reclamation and effluent standards being met, each sediment basin not remaining as a permanent water impoundment will be dewatered in an environmentally safe manner (such as siphoning, pumping, etc.) and reclaimed to approximate original contours by the following procedure: A permanent diversion channel (designed for a 10 year - 24 hour precipitation event) shall be cut along the outer edge of the basin to re-route drainage around the basin and back through the stabilized spillway to allow reclamation of the sediment basin. The diversion channel shall be designed and grassed as per enclosed information. (See permanent diversion for basin disposal). Upon completion of the diversion channel the back slope of the dam shall be graded to a minimum 3H to 1V slope. The dewatered sediment basin area shall be seeded with some combination of the following: Fescue, bermuda, rye grass, canary grass and willows. After seeding the area shall be mulched. Any additional sediment or embankment material not used to meet original contour, if non-toxic, shall be spread in thin layers within the permit area and vegetated as stated in the approved reclamation plan. All toxic material encountered in the basin disposal shall be buried and covered with 4 feet of non-toxic material and vegetated as stated in the approved reclamation plan.
25. A qualified registered professional engineer or other qualified professional specialist, under the direction of the professional engineer shall conduct regular inspections during construction and upon completion shall inspect each basin for certification purposes.
26. Point source discharge embankments shall be constructed and abutments keyed into desirable material if at all possible. In the event that undesirable material is encountered, addition design and construction criteria shall be submitted prior to certification.

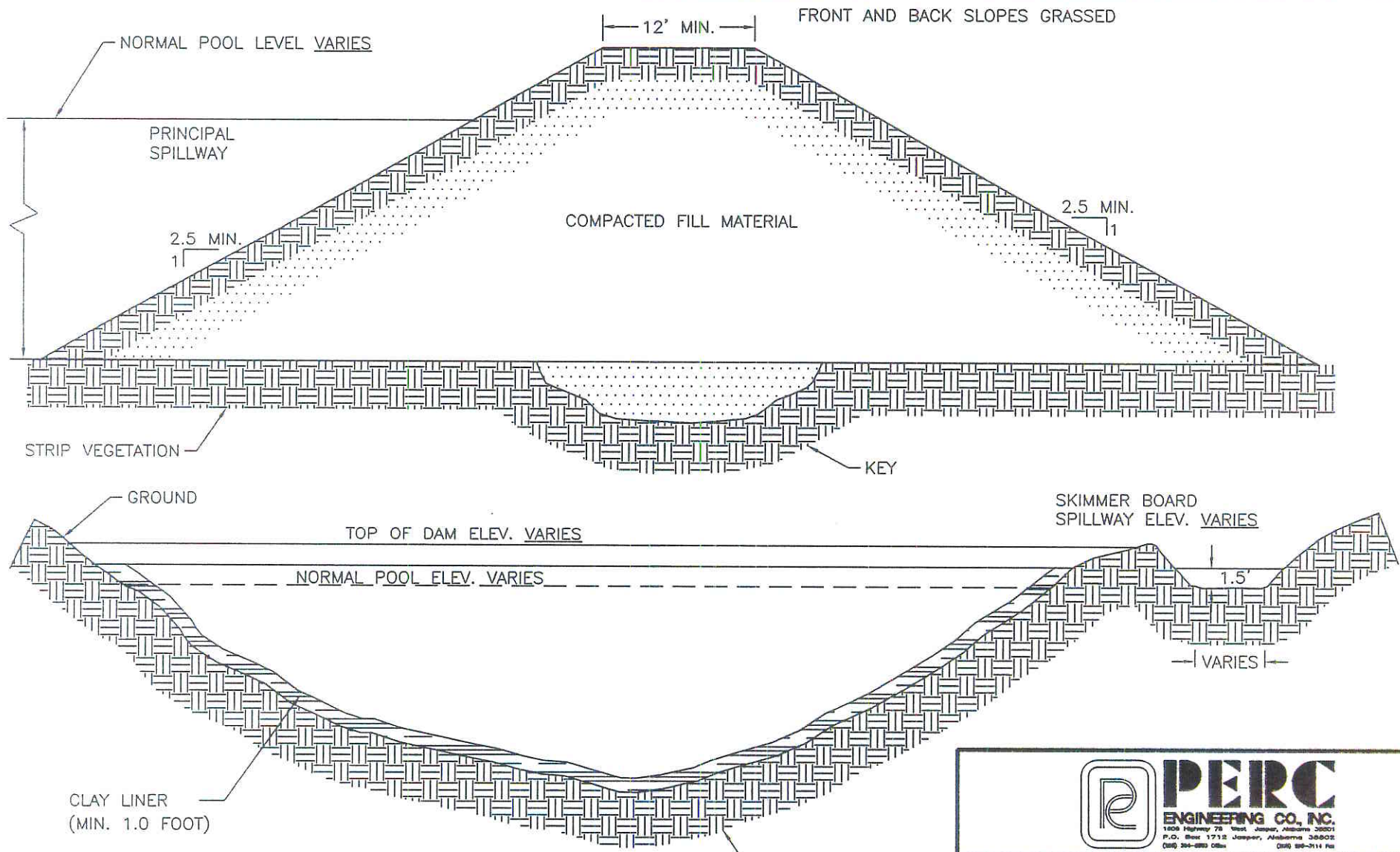


PLANVIEW OF EMBANKMENT POND



**TYPICAL PLANVIEW
OF EMBANKMENT
POND**

DRAWN BY: P.T.O.	DATE: 8-10-05
DWG. NAME: TYPICALS	
APPROVED BY: W.K.M.	SCALE: NONE



TYPICAL DAM DETAIL
NO SCALE

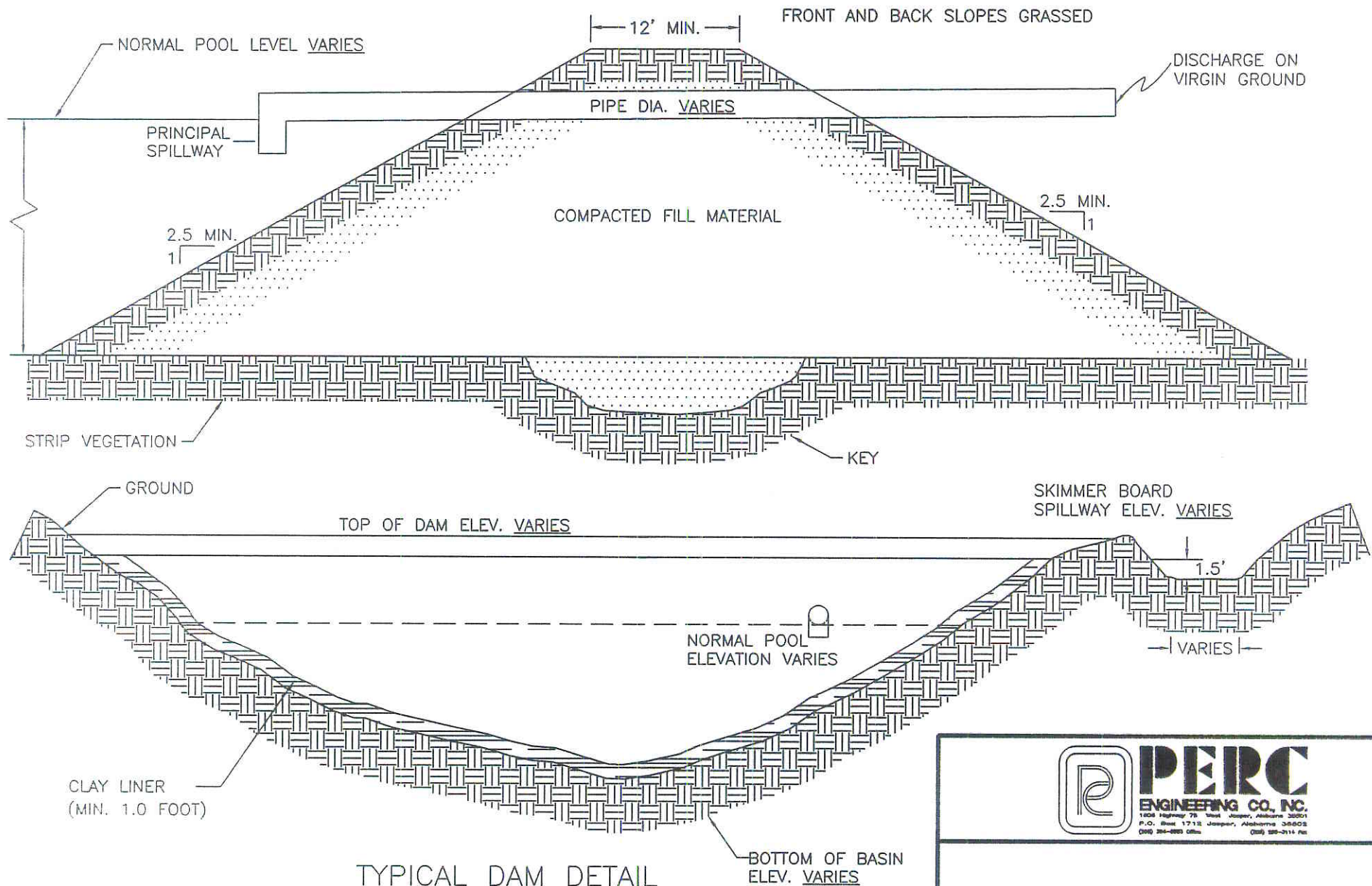
Lined with 1.0 feet (minimum) of clay material with a permeability no greater than 1×10^{-6} cm/sec up to the emergency spillway elevation to minimize infiltration and to provide a stable pool level with the clay placed in 6" lifts compacted to 95% of standard proctor.

ATTACHMENT III-B-2-A



TYPICAL DAM DETAIL
WITH CLAY LINER

DRAWN BY: J.W.T.	DATE: 4/10/2009
DWG. NAME: TYPICALS	
APPROVED BY: L.G.S.	SCALE: NONE



TYPICAL DAM DETAIL
NO SCALE

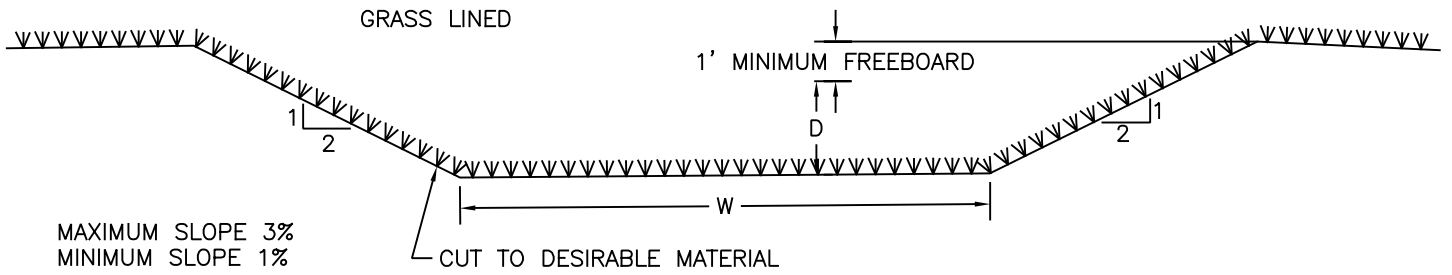
Lined with 1.0 feet (minimum) of clay material with a permeability no greater than 1×10^{-6} cm/sec up to the emergency spillway elevation to minimize infiltration and to provide a stable pool level with the clay placed in 6" lifts compacted to 95% of standard proctor.

ATTACHMENT III-B-2-A



TYPICAL DAM DETAIL
WITH CLAY LINER

DRAWN BY: J.W.T.	DATE: 4/10/2009
DWG. NAME: TYPICALS	
APPROVED BY: L.G.S.	SCALE: NONE



$$Q = \frac{1.49}{N} A R^{2/3} S^{1/2}$$

$N(\text{LOOSE STONE OR GRASS LINED}) = 0.035$
 $A = \text{AREA}$
 $R = \text{AREA/WETTED PERIMETER}$
 $S = \text{SLOPE}$

* GRASS LINING: FESCUE, BERMUDA, RYE GRASS

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 8.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-15	0.5
15-50	1.0
50-100	1.5
100-180	2.0
180-270	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 10.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-15	0.5
15-60	1.0
60-120	1.5
120-210	2.0
210-320	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 12.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-20	0.5
20-70	1.0
70-150	1.5
150-250	2.0
250-383	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 15.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-25	0.5
25-90	1.0
90-180	1.5
180-300	2.0
300-450	2.5



TYPICAL PERMANENT DIVERSION FOR BASIN DISPOSAL

DRAWN BY: S.D.M.
DWG. NAME: TYPICALS

DATE: 1/4/2011

APPROVED BY: L.G.S.

SCALE: NONE

Applicant: <u>WB Mining, LLC</u>
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5. Transportation Facilities (780.33, 780.37)

- (a) Describe the measures to be taken to ensure the interest of the public and landowners affected are protected if disturbance within 100 feet of the right-of-way or relocation of a public road is proposed.
- 1) Safety berms will be constructed adjacent to roadways to be disturbed to contain traffic.
 - 2) Proper signs, informing the traveling public of the disturbance, will be posted along the road right-of-ways 500 feet from the beginning of the disturbance.
 - 3) All safety requirements of the appropriate public health and safety, will be followed.

See Attachment III-B-5(a) for Elbo Porter Road and Forrester Road Closure with Vacation of Right of Way by Jefferson County.

Also see Attachment III-B-5(a) for the Short Creek Road setback wavier and requirement by Jefferson County.

- (b) Describe any unique design, feature, or structure which is necessary for the road to meet the performance standards of Subchapter K using any necessary maps, plans, or cross-sections.

See Original Permit and Subsequent Revisions

- (c) Describe, in detail, the measures to be taken during construction, maintenance and use of the transportation facilities to prevent damage to fish and wildlife and their habitat; public and private property; and erosion, siltation, and pollution of water.

See Original Permit and Subsequent Revisions