

## PERMANENT WATER IMPOUNDMENT

As per rule 880-X-10C-.20(2)(a, b, c, d, e, & f), sediment basin No. 025 was designed, approved, constructed and certified to meet all requirements of rules 880-X-8F.11(1)(b), 880-X-10C-.13, 880-X-10C-.17, 880-X-10C-.18, and 880-X-10C-.20(1 & 3). The operation and maintenance requirements approved in the design plans will remain in effect.

As per rule 880-X-10C-.20(2), sediment basin no. 025 the following is submitted.

- (a) The proposed post mining land use for Basin 025 is Fish & Wildlife Habitat. The size and configuration of the permanent water impoundment (PWI) is basically the same as shown in the approved design plans. The approximate surface area at normal pool, existing storage capacity, average depth of water and maximum water depth are as shown in the following table. The approximate surface areas are based on information provided in the approved plans and all other measurements are based on information presented in the most recent annual re-certification reports for each basin.

<b>BASIN I. D.</b>	<b>APPROXIMATE SURFACE AREA (ACRES)</b>	<b>EXISTING STORAGE CAPACITY (AC. -FT.)</b>	<b>AVERAGE DEPTH (FT.)</b>	<b>*MAXIMUM DEPTH (FT.)</b>
025	1.04	5.34	13.0	13.0

\* Maximum depth as measured from lowest point of basin to primary spillway elevation. The size and configuration of each PWI is suitable for the proposed post-mining land use. Each PWI will enhance the post-mining land use by providing wildlife refuge, and areas for fish habitat.

- (b) The proposed post mining land use for Basin 025 is Fish & Wildlife Habitat. The quality of the discharge from the impoundments is suitable on a permanent basis for the intended land use. Samples of water have been collected, analyzed and reported since the beginning of mining. These analyses are recorded in the attached Discharge Monitoring Reports:

The attached water quality data indicates that the quality of each PWI is suitable for its intended use and is adequate to meet the requirements of rule 880-X-10C-.20(2)(b).

- (c) The proposed post mining land use for Basin 025 is Fish & Wildlife Habitat. The water level in each of the proposed PWI does not fluctuate from the principle spillway elevation more than two (2) feet during periods of dry weather; therefore, the water level in each PWI is sufficiently stable and capable of supporting its intended use.
- (d) The final grading slopes in the areas surrounding the dam & the pool area is no steeper than 2.5H:1V. Therefore, adequate safety and access is provided for the proposed water users.
- (e) Because of the drainage areas of each of the proposed PWI's, location of the impoundments, the water quality and quantity, leaving these basins as PWI's will not result

in the diminution of the quality or quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational, or domestic uses.

- (f) Based on the information and data presented, this impoundment is suitable for the proposed post-mining land use, which is Fish & Wildlife Habitat.
- (g) The PWI's are adequate to safely pass the anticipated peak flows resulting from a 25 Year - 6 Hour precipitation event. Available freeboard during a 25 Year - 6 Hour precipitation event for each PWI is given in the table below.

BASIN	FREEBOARD
025	1.00'

### MAINTENANCE PLAN

The maintenance requirements approved in the detailed design plans will remain in effect. Permanent water impoundment 025 will be inspected regularly, at least monthly, with maintenance performed as necessary. Debris, which may have collected and clogged the spillway system, will be removed to allow the impoundment to function properly as designed. Any slope instability, slope failures, or eroded areas will be repaired and re-vegetated. Areas where initial vegetation was unsuccessful will be re-vegetated as necessary.

After the approval of Phase III Bond Release, the responsibility for the sound future maintenance, as outlined in these plans and the approved detailed design plans, for these impoundments will revert back to the individual landowners.

### MODIFICATIONS NECESSARY PRIOR TO CERTIFICATION

None.

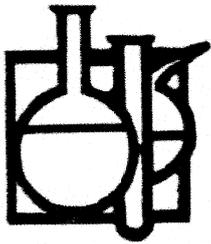
### CERTIFICATION STATEMENT

I, hereby certify that the impoundment is designed, constructed and is being maintained to meet the requirements of Chapter 880-X-10 to the best of knowledge and belief.

  
PROFESSIONAL ENGINEER

11/12/13  
DATE





# GUARDIAN SYSTEMS, INC.

1108 Ashville Road  
P.O. Box 190  
Leeds, Alabama 35094

Telephone 205/ 699-6647  
Wats 866/729-7211  
Fax 205/699-3882

Page: 1

Birmingham Coal & Coke  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 10/29/13  
Receive Date: 10/24/13  
Receive Time: 10:00

Attention: Mr. Rich Weaver

Control No : 1310-00322 Sample # 007  
Sampler : RW  
Sample ID : Nina V - 025

Sample Date: 10/23/13  
Sample Time: 15:00

## LABORATORY CERTIFICATE

PARAMETER	RESULTS	UNITS	ANAL DATE	TIME	METHOD
Solids, Total Suspended	2.	mg/L	LSC 10/24/13	14:00	SM-2540D (2)
Iron	0.28	mg/L	DRH 10/28/13	139:00	200.7 (1)
Manganese	0.33	mg/L	DRH 10/28/13	139:00	200.7 (1)

Field pH 10/23/13 7.30 JFW

Approved by:   


### METHOD REFERENCES

- (1) Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-20, revised March 1983, August 1993, May 1994
- (2) Standard Methods for the Examination of Water and Waste Water, 18th, 19th, and 20th Edition, 1998
- (3) Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3rd Edition, Updated IV December 1996
- (4) 1987 ASTM Annual Standards
- (5) Code of Federal Regulations, Title 40, Part 136, Appendix A, Revised July 1995
- (6) Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/030 Revised July 1991 August 1995

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)  
 MINING AND NATURAL RESOURCE SECTION  
 DISCHARGE MONITORING REPORT (DMR)

ADEM Form 351 8-02

NPDES # AL0060682  
 Ninna V Mine

Ptype 1  
 Surface Mine

Birmingham Coal & Coke Company, Inc.  
 912 Edenton Street

OUTFALL NUMBER 025

ASMC Permit #

P-3675

Birmingham, AL 35242

(205) 205-408-5881

Walker, Winston Counties

= Data Not Required

Year 2012

1st Qtr [ ]  
 Jan-Feb-Mar

2nd Qtr [ ]  
 Apr-May-Jun

3rd Qtr [X]  
 Jul-Aug-Sep

4th Qtr [ ]  
 Oct-Nov-Dec

Parameter	STANDARD LIMITS							FLOW*	TOXICITY LIMITS**	
	Ph	TSS	Fe	Mn	Specific Conductance	Sulfate	TDS		Ceriodaphnia Acute	Pimephales Acute
Daily Minimum	6.0									
Monthly Average		35.0	3.0	2.0	Report	Report	Report	Report		
Daily Maximum	9.0	70.0	6.0	4.0	Report	Report	Report	Report	0	
Unit	s.u.	mg/l	mg/l		s.u.	ml/l	mg/l	MGD	pass(0)/fail(1)	pass(0)/fail(1)
Frequency	2/mth	1/week	2/mth	2/mth	2/mnth	2/mnth	1/qtr	1/week	1/qtr	1/qtr
7/3/12	No	Discharge						0.00		
7/17/12	No	Discharge						0.00		
Mth Avg								0.00		
8/7/12	No	Discharge						0.00		
8/15/12	No	Discharge						0.00		
Mth Avg								0.00		
9/4/12	No	Discharge						0.00		
9/18/12	No	Discharge						0.00		
Mth Avg								0.00		
Pump Discharge Point (Y/N)			N		pH Exemption Claimed (Y/N)			N		

In accordance with Part IV.E of the referenced NPDES permit, if the permittee claims the pH exemption, detailed documentation sufficient to prove eligibility must be retained on file and be available for review by ADEM until the permit is properly terminated.

In accordance with Part IV.F of the referenced NPDES permit, if the permittee claims the manganese exemption, detailed documentation sufficient to prove eligibility must be submitted as attachment to this DMR. For each claim of manganese exemption the permittee shall report "NODI=9" as the reported manganese value on this DMR.

Birmingham Coal & Coke Co., Inc. Perc Engineering, Central Testing, Guardian Systems

Name of Permittee and/or Company(s) Collecting Samples And Performing Analyses.

I certify under penalty of law that this document and all attachments were prepared under my direction/supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Greg Jones, V.P.  
 Name & Title of Responsible Official

Signature

10-25-12 Date

\* Instantaneous measure. Flow must be monitored in MGD each time a sample is collected. \*\* Refer to permit for toxicity requirements  
 Refer to Part I.B. of the permit. At least one sample must be obtained and analyzed for pumped or mechanical discharges if a discharge occurred at any time during the quarterly (three month) monitoring period. If applicable, list minimum of two required inspection dates for each month and report "No Discharge During Entire Quarter".



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OUTFALL NUMBER

025

ASMC Permit #

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Walker, Winston Counties

Ptype 1  
Surface Mine

Birmingham Coal & Coke Company, Inc.

912 Edenton Street

Birmingham, AL 35242

(205) 205-408-5881

= Data Not Required

Year

2013

1st Qtr

X

Jan-Feb-Mar

2nd Qtr

Apr-May-Jun

3rd

Qtr

Jul-Aug-Sep

4th Qtr

Oct-Nov-Dec

Parameter	STANDARD LIMITS								TOXICITY LIMITS**		
	Ph	TSS	Fe	Mn	Specific Conductance	Sulfate	TDS	FLOW*	Ceriodaphnia Acute	Pimephales Acute	
Daily Minimum	6.0										
Monthly Average		35.0	3.0	2.0	Report	Report	Report	Report	0		
Daily Maximum	9.0	70.0	6.0	4.0	Report	Report	Report	Report	pass(0)/fail(1)	pass(0)/fail(1)	
Unit	s.u.	mg/l	mg/l		s.u.	ml/l	mg/l	MGD	1/qtr	1/qtr	
Frequency	2/mth	2/mth	2/mth	2/mth	2/mnth	2/mnth	1/qtr	2/mnth			
1/11/13	No Discharge							0.00			
D	1/25/13	7.6	17	0.8	0.5	42	17	26	0.01	0	
A											
T											
E											
S											
Month Average		17	0.8	0.5	42	17	26	0.01	0	0	
D	2/8/13	No Discharge						0.00			
A	2/22/13	No Discharge						0.00			
T											
E											
S											
Month Average								0.00			
D	3/8/13	7.1	14	0.8	1	42	23	0.01			
A	3/22/13	7.7	11	0.7	1	40	26	0.01			
T											
E											
S											
Month Average		13	0.8	0.6	41	25		0.01			
Pump Discharge Point (Y/N)			N			pH Exemption Claimed (Y/N)			N		

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Greg Jones, V.P.  
 Name & Title of Responsible Official

Signature

4-25-13

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 Refer to Part I.B. of the permit. At least one sample must be obtained and analyzed for pumped or mechanical discharges if a discharge occurred at any time during the quarterly (three month) monitoring period. If applicable, list minimum of two required inspection dates for each month and report "No Discharge During Entire Quarter".



