



**Alabama Department of Environmental Management**  
**adem.alabama.gov**

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March 08, 2019

Robert A. Lewis  
President  
Birmingham Coal and Coke Company, Inc.  
912 Edenton Street  
Birmingham, AL 35242

RE: Draft Permit  
Old Union Mine  
NPDES Permit No. AL0077771  
Winston County (133)

Dear Mr. Lewis:

Transmitted herein is a draft of the above referenced permit. Please review the enclosed draft permit carefully. If previously permitted, the draft may contain additions/revisions to the language in your previous permit. Please submit any comments on the draft permit to the Department within 30 days from the date of receipt of this letter.

Since the Department has made a tentative decision to issue the above referenced permit, ADEM Admin. Code r. 335-6-6-.21 requires a public notice of the draft permit followed by a period of at least 30 days for public comment before the permit can be issued. The United States Environmental Protection Agency will also receive the draft permit for review during the 30-day public comment period.

Any mining, processing, construction, land disturbance, or other regulated activity proposed to be authorized by this draft permit is prohibited prior to the effective date of the formal permit. Any mining or processing activity within the drainage basin associated with each permitted outfall which is conducted prior to Departmental receipt of certification from a professional engineer licensed to practice in the State of Alabama, that the Pollution Abatement/Prevention Plan was implemented according to the design plan, or notification from the Alabama Surface Mining Commission that the sediment control structures have been certified, is prohibited.

The Department utilizes a web-based electronic environmental (E2) reporting system for electronic DMR submittal. Please read Part I.D of the permit carefully and visit <https://e2.adem.alabama.gov/npdes>.

Should you have any questions concerning this matter, please contact David Hearn by email at [david.hearn@adem.alabama.gov](mailto:david.hearn@adem.alabama.gov) or by phone at (334) 274-4231.

Sincerely,

Catherine A. McNeill, Chief  
Mining and Natural Resource Section  
Stormwater Management Branch  
Water Division

CAM/dh File: DPER/29288

Enclosure

cc: David Hearn, ADEM  
Environmental Protection Agency Region IV  
Alabama Department of Conservation and Natural Resources  
U.S. Fish and Wildlife Service  
Alabama Historical Commission  
Advisory Council on Historic Preservation  
Alabama Surface Mining Commission





# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE: Birmingham Coal and Coke Company, Inc.  
912 Edenton Street  
Birmingham, AL 35242

FACILITY LOCATION: Old Union Mine  
2876 County Road 70  
Nauvoo, AL 35578  
Winston County  
T11S, R9W, S36  
T11S, R8W, S31  
T12S, R9W, Sections 1, 2, 10-14, and 23  
T12S, R8W, S6

PERMIT NUMBER: AL0077771

DSN RECEIVING STREAM

001-1 Little Blackwater Creek  
003-1 Little Blackwater Creek  
005-1 Little Blackwater Creek  
007-1 Indian Creek  
009-1 Unnamed Tributary to Indian Creek  
011-1 Indian Creek  
013-1 Unnamed Tributary to Indian Creek  
015-1 Indian Creek  
017-1 Unnamed Tributary to Indian Creek  
019-1 Unnamed Tributary to Indian Creek  
021-1 Indian Creek  
023-1 Unnamed Tributary to Indian Creek  
025-1 Unnamed Tributary to Indian Creek  
027-1 Indian Creek  
029-1 Unnamed Tributary to Black Creek  
031-1 Unnamed Tributary to Water Branch  
033-1 Unnamed Tributary to Water Branch  
035-1 Unnamed Tributary to Water Branch  
037-1 Unnamed Tributary to Water Branch  
039-1 Indian Creek  
041-1 Unnamed Tributary to Water Branch

DSN RECEIVING STREAM

002-1 Little Blackwater Creek  
004-1 Little Blackwater Creek  
006-1 Little Blackwater Cree  
008-1 Indian Creek  
010-1 Unnamed Tributary to Indian Creek  
012-1 Indian Creek  
014-1 Unnamed Tributary to Indian Creek  
016-1 Unnamed Tributary to Indian Creek  
018-1 Unnamed Tributary to Indian Creek  
020-1 Unnamed Tributary to Indian Creek  
022-1 Indian Creek  
024-1 Unnamed Tributary to Indian Creek  
026-1 Indian Creek  
028-1 Unnamed Tributary to Black Creek  
030-1 Unnamed Tributary to Water Branch  
032-1 Unnamed Tributary to Water Branch  
034-1 Unnamed Tributary to Water Branch  
036-1 Unnamed Tributary to Water Branch  
038-1 Unnamed Tributary to Water Branch  
040-1 Unnamed Tributary to Water Branch  
042-1 Water Branch

043-1 Water Branch  
045-1 Unnamed Tributary to Water Branch  
047-1 Water Branch  
049-1 Water Branch  
051-1 Browns Creek

044-1 Unnamed Tributary to Water Branch  
046-1 Unnamed Tributary to Water Branch  
048-1 Water Branch  
050-1 Water Branch

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

**\*\* DRAFT \*\***

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Alabama Department of Environmental Management

**MINING AND NATURAL RESOURCE SECTION  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

**TABLE OF CONTENTS**

<b>PART I</b>	<b>DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS</b>	
A.	DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS.....	5
1.	Active Mining Limitations and Monitoring Requirements .....	5
2.	Precipitation Exemption Limitations and Monitoring Requirements.....	6
3.	Post Mining Limitations and Monitoring Requirements.....	7
B.	REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL.....	7
C.	DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS .....	8
1.	Sampling Schedule and Frequency.....	8
2.	Measurement Frequency .....	8
3.	Monitoring Schedule.....	8
4.	Sampling Location.....	9
5.	Representative Sampling .....	9
6.	Test Procedures .....	9
7.	Recording of Results .....	10
8.	Routine Inspection by Permittee.....	10
9.	Records Retention and Production.....	11
10.	Monitoring Equipment and Instrumentation .....	11
D.	DISCHARGE REPORTING REQUIREMENTS.....	11
1.	Requirements for Reporting of Monitoring.....	11
2.	Requirements for Outfall Certification Summary Submittal.....	13
3.	Noncompliance Notification .....	14
4.	Reduction, Suspension, or Termination of Monitoring and/or Reporting Requirements	14
E.	OTHER REPORTING AND NOTIFICATION REQUIREMENTS.....	16
1.	Anticipated Noncompliance.....	16
2.	Termination of Discharge.....	16
3.	Updating Information .....	16
4.	Duty to Provide Information .....	16
F.	SCHEDULE OF COMPLIANCE.....	16
<b>PART II</b>	<b>OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES</b>	
A.	OPERATIONAL AND MANAGEMENT REQUIREMENTS.....	18
1.	Facilities Operation and Management .....	18
2.	Best Management Practices (BMPs).....	18
3.	Biocide Additives .....	19
4.	Facility Identification .....	20
5.	Removed Substances .....	20
6.	Loss or Failure of Treatment Facilities .....	20
7.	Duty to Mitigate.....	20
B.	BYPASS AND UPSET .....	20
1.	Bypass.....	20
2.	Upset.....	21
C.	PERMIT CONDITIONS AND RESTRICTIONS.....	22
1.	Prohibition against Discharge from Facilities Not Certified .....	22
2.	Permit Modification, Suspension, Termination, and Revocation .....	22

3. Automatic Expiration of Permits for New or Increased Discharges.....	23
4. Transfer of Permit.....	24
5. Groundwater .....	24
6. Property and Other Rights.....	24
D. RESPONSIBILITIES .....	24
1. Duty to Comply .....	24
2. Change in Discharge .....	25
3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition .....	25
4. Compliance with Water Quality Standards and Other Provisions.....	26
5. Compliance with Statutes and Rules .....	26
6. Right of Entry and Inspection.....	26
7. Duty to Reapply or Notify of Intent to Cease Discharge.....	27
<b>PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS</b>	
A. CIVIL AND CRIMINAL LIABILITY.....	28
1. Tampering.....	28
2. False Statements .....	28
3. Permit Enforcement.....	28
4. Relief From Liability.....	28
B. OIL AND HAZARDOUS SUBSTANCE LIABILITY.....	28
C. AVAILABILITY OF REPORTS.....	28
D. DEFINITIONS .....	28
E. SEVERABILITY.....	33
F. PROHIBITIONS AND ACTIVITIES NOT AUTHORIZED.....	33
<b>PART IV SPECIAL REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS</b>	
A. DISCHARGES TO IMPAIRED WATERS.....	35
B. PRECIPITATION EVENT DISCHARGE LIMITATIONS.....	35
1. Monitoring for Claims of Precipitation Event Discharge Limitation Exemption .....	35
2. Precipitation Event Discharge Limitation Exemption Submittal .....	35
3. Applicable 24-Hour Precipitation Events.....	36
4. 24-Hour Precipitation Event Greater Than a 1-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events.....	36
5. 24-Hour Precipitation Event Less Than or Equal to a 2-Year, 24-Hour Precipitation Event.....	36
6. 24-Hour Precipitation Event Greater Than a 2-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events.....	36
7. 24-Hour Precipitation Event Less Than or Equal to a 10-Year, 24-Hour Precipitation Event.....	36
8. 24-Hour Precipitation Event Greater Than a 10-Year, 24-Hour Precipitation Event.....	37
C. POST-MINING DISCHARGE LIMITATIONS.....	37
D. pH EXEMPTION DISCHARGE LIMITATIONS .....	37
E. MANGANESE EXEMPTION DISCHARGE LIMITATIONS.....	37
F. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR ACUTE TOXICITY .....	38

## PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

### A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

#### 1. Active Mining Limitations and Monitoring Requirements

During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Except as provided in Parts I.A.2. and 3., discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency <sup>1</sup>
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	2/Month
pH <sup>2</sup> 00400	6.0 s.u.	-----	10.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	35.0 mg/L	70.0 mg/L	Grab	2/Month
Selenium, Total Recoverable 00981(Outfall 014)	-----	5.00 µg/l	20.0 µg/l	Grab	1/Month
Iron, Total (As Fe) 01045	-----	3.0 mg/L	6.0 mg/L	Grab	2/Month
Manganese, Total (As Mn) <sup>3</sup> 01055	-----	2.0 mg/L	4.0 mg/L	Grab	2/Month
Nickel, Dissolved (As Ni) 01065 (Outfall 014)	-----	103.0 µg/l	468.2 µg/l	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant <sup>4</sup> 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month
Cyanide, Free Available 51173 (Outfalls 007-050)	-----	5.2 µg/l	22.0 µg/l	Grab	1/Month
Toxicity, Ceriodaphnia Acute <sup>5</sup> 61425	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Toxicity, Pimephales Acute <sup>5</sup> 61427	-----	-----	0 pass(0)/fail(1)	Grab	1/Quarter
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

<sup>1</sup> See Part I.C.2. for further measurement frequency requirements.

<sup>2</sup> See Part IV.D. for pH Exemption Discharge Limitations.

<sup>3</sup> See Part IV.E. for Manganese Exemption Discharge Limitations.

<sup>4</sup> Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

<sup>5</sup> See Part IV.F. for Effluent Toxicity Limitations and Biomonitoring Requirements for Acute Toxicity.

**2. Precipitation Exemption Limitations and Monitoring Requirements<sup>6</sup>**

During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. During periods of applicable 24-hour precipitation events for which the Permittee claims an exemption of standard mining limits as provided by Part IV.C., such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency <sup>7</sup>
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	2/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	2/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	2/Month
Solids, Settleable <sup>8</sup> 00545	-----	-----	0.5 mL/L	Grab	2/Month
Selenium, Total Recoverable 00981 (Outfall 014)	-----	Report µg/L	Report µg/L	Grab	1/Month
Iron, Total (As Fe) <sup>9</sup> 01045	-----	-----	7.0 mg/L	Grab	2/Month
Nickel, Dissolved (As Ni) 01065 (Outfall 014)	-----	Report µg/L	Report µg/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant <sup>10</sup> 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month
Cyanide, Free Available 51173 (Outfalls 007-050)	-----	Report µg/L	Report µg/L	Grab	1/Month
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

<sup>6</sup> See Part IV.C. for Precipitation Event Discharge Limitations.

<sup>7</sup> See Part I.C.2. for further measurement frequency requirements.

<sup>8</sup> The discharge limitation for Settable Solids is not applicable for precipitation events greater than a 10-year, 24-hour precipitation event.

<sup>9</sup> The discharge limitation for Total Iron (As Fe) is only applicable for precipitation events less than or equal to a 2-year, 24-hour precipitation event.

<sup>10</sup> Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

### 3. Post Mining Limitations and Monitoring Requirements<sup>11</sup>

During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. For those outfalls which the Department has granted written approval pursuant to Part IV.D., such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency <sup>12</sup>
Specific Conductance 00095	-----	Report µS/cm	Report µS/cm	Grab	1/Month
Sulfate (As S) 00154	-----	Report mg/L	Report mg/L	Grab	1/Month
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	1/Month
Solids, Settleable 00545	-----	-----	0.5 mL/L	Grab	1/Month
Selenium, Total Recoverable 00981 (Outfall 014)	-----	5.00 µg/L	20.0 µg/L	Grab	1/Month
Nickel, Dissolved (As Ni) 01065 (Outfall 014)	-----	103.0 µg/L	468.2 µg/L	Grab	1/Month
Flow, In Conduit or Thru Treatment Plant <sup>13</sup> 50050	-----	Report MGD	Report MGD	Instantaneous	1/Month
Cyanide, Free Available 51173 (Outfalls 007-050)	-----	5.2 µg/L	22.0 µg/L	Grab	1/Month
Solids, Total Dissolved (TDS) 70296	-----	Report mg/L	Report mg/L	Grab	1/Quarter

### B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is not authorized by this Permit until the outfall has been constructed and certification received by the Department from a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the ASMC, if applicable. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the ASMC, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.
2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.

<sup>11</sup> See Part IV.C. for Post-Mining Discharge Limitations.

<sup>12</sup> See Part I.C.2. for further measurement frequency requirements.

<sup>13</sup> Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.



3. Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.
4. Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

## **C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS**

### **1. Sampling Schedule and Frequency**

- a. Except as provided in Parts IV.B. and C., the Permittee shall collect samples of the discharge from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application, at the frequency specified in Part I.A. Analysis of the samples shall be conducted for the parameters specified in Part I.A.
- b. For each permitted, constructed, and certified point source which results from direct pumped drainage from the underground works of an underground coal mine or from surface drainage, if the final effluent is pumped in order to discharge (e.g. incised ponds, old highwall cuts, old pit areas or depressions), at least one grab sample from the permitted point source shall be obtained and analyzed each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period.
- c. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

### **2. Measurement Frequency**

Measurement frequency requirements found in Part I.A. shall mean:

- a. A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.
- b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.
- c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.
- d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.
- e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.
- f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

### **3. Monitoring Schedule**

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

- a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).
- b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).
- c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).
- d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

**4. Sampling Location**

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

**5. Representative Sampling**

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

**6. Test Procedures**

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136,

guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.

- b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the Permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

## **7. Recording of Results**

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

- a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used including source of method and method number; and
- f. The results of all required analyses.

## **8. Routine Inspection by Permittee**

- a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of

this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.

- b. If required by the Director, the Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:
  - (1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;
  - (2) Whether there was a discharge from the point source at the time of inspection by the Permittee;
  - (3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;
  - (4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and
  - (5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

#### **9. Records Retention and Production**

- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
- b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

#### **10. Monitoring Equipment and Instrumentation**

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

### **D. DISCHARGE REPORTING REQUIREMENTS**

#### **1. Requirements for Reporting of Monitoring**

- a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28<sup>th</sup> day of the month following the quarterly reporting period (i.e., on the 28<sup>th</sup> day of January, April, July, and October of each year).
- b. The Department utilizes a web-based electronic environmental (E2) reporting system for submittal of DMRs. **Except as allowed by Part I.D.1.c. or d., the Permittee shall submit all DMRs required by Part I.D.1.a. by utilizing the E2 reporting system.** The E2 reporting system Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>.
- c. If the electronic environmental (E2) reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by the required submittal date. However, if the E2 system is down on the 28<sup>th</sup> day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 system resuming operation, the Permittee shall enter the data into the E2 reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date).
- d. The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable. Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The Permittee shall submit the Department-approved DMR forms to the address listed in Part I.D.1.j.
- e. If the Permittee, using approved analytical methods as specified in Part I.C.6., monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form.
- f. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.
- g. The Permittee shall report "No Discharge During Quarterly Monitoring Period" on the appropriate DMR Form for each point source receiving pumped discharges pursuant to Part I.C.1.b. provided that no discharge has occurred at any time during the entire quarterly (three month) monitoring period.
- h. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1. must be legible and bear an original signature or electronic signature. Photo and

electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.

- i. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or 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."

- j. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be addressed to:

Alabama Department of Environmental Management  
Water Division, Mining and Natural Resource Section  
Post Office Box 301463  
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management  
Water Division, Mining and Natural Resource Section  
1400 Coliseum Boulevard  
Montgomery, Alabama 36110-2059

- k. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.
- l. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.

## 2. Requirements for Outfall Certification Summary Submittal

The Permittee shall submit as an attachment to the certification required by Part I.B.1, an Outfall Certification Summary in a format approved or provided by the Department. The Outfall Certification Summary shall indicate whether each outfall identified on Page 1 of this Permit has been certified and, if so, it shall include the date for each certification as well as the latitude and longitude of the certified outfall. If any outfall identified on Page 1 of this Permit has received written approval from the Department pursuant to Part IV.C. of

this Permit stating that the Permittee may utilize the Post-Mining Discharge Limitations specified in Part I.A.3., then the list of outfalls shall include the date of the Post-Mining Discharge Limitations approval. If any outfall identified on Page 1 of this Permit has been released from monitoring requirements as provided in Part I.D.4. of this Permit, then the list of outfalls shall include the date of the monitoring requirement release.

### 3. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
- (1) Potentially threatens human health or welfare;
  - (2) Potentially threatens fish or aquatic life;
  - (3) Causes an in-stream water quality criterion to be exceeded;
  - (4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);
  - (5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or
  - (6) Exceeds any discharge limitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as provided in Part I.D.3.c., no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director, as provided in Part I.D.3.c. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.
- c. Any written report required to be submitted to the Director in accordance with Parts I.D.3.a. and b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<http://adem.alabama.gov/DeptForms/Form421.pdf>) and include the following information:
- (1) A description of the discharge and cause of noncompliance;
  - (2) The period of noncompliance, including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue; and
  - (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

### 4. Reduction, Suspension, or Termination of Monitoring and/or Reporting Requirements

- a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:
- (1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;
  - (2) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, by the Alabama Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;
  - (3) The Permittee has certified to the Director that the 100% Bond Release has been granted by the Alabama Surface Mining Commission for all areas disturbed in the drainage basin(s) associated with the discharge;
  - (4) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc., must be removed and disposed of according to applicable state and federal regulations;
  - (5) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions;
  - (6) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;
  - (7) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;
  - (8) The Permittee's request has included the certification required by Part I.D.1.d. of this Permit; and
  - (9) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (8) above.
- b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.
- c. If monitoring reductions or releases have been granted by the Department for requirements under a previous permit version, permit requirements shall remain reduced or released for the approved outfalls. However, should any changes occur at the site or



discharge conditions upon which the monitoring reduction or release was based, the Permittee is required to notify the Department in writing and immediately resume the monitoring and reporting requirements.

- d. The Department may require the Permittee in writing to resume monitoring requirements for released outfalls pursuant to Part I.B of the NPDES Permit.

## **E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS**

### **1. Anticipated Noncompliance**

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

### **2. Termination of Discharge**

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

### **3. Updating Information**

- a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.

- b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

### **4. Duty to Provide Information**

- a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.

- b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

## **F. SCHEDULE OF COMPLIANCE**

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

**Compliance must be achieved by the effective date of this Permit.**

## **PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES**

### **A. OPERATIONAL AND MANAGEMENT REQUIREMENTS**

#### **1. Facilities Operation and Management**

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

#### **2. Best Management Practices (BMPs)**

a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.

c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.

d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.

#### **e. Spill Prevention, Control, and Management**

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as provided by ADEM Admin. Code r. 335-6-6-.08(j)5. The Plan shall describe and the Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management pursuant to ADEM Admin. Code r. 335-6-6-.12 (r) sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. The Plan shall include at a minimum, the engineering requirements provided in 40 C.F.R. §§112.1. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The Plan shall list any

materials which the Permittee may utilize to contain and to absorb fuel and chemical spills and leaks. The Permittee shall maintain sufficient amounts of such materials onsite or have sufficient amounts of such materials readily available to contain and/or absorb fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in a manner consistent with all State and federal regulations.

- f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.
- g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

**3. Biocide Additives**

- a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:
  - (1) Name and general composition of biocide or chemical;
  - (2) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);
  - (3) Quantities to be used;
  - (4) Frequencies of use;
  - (5) Proposed discharge concentrations; and
  - (6) EPA registration number, if applicable.
- b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

**4. Facility Identification**

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason(s).

**5. Removed Substances**

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

**6. Loss or Failure of Treatment Facilities**

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

**7. Duty to Mitigate**

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and minimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

**B. BYPASS AND UPSET**

**1. Bypass**

- a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c.
- b. A bypass is not prohibited if:
  - (1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;
  - (2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;
  - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and
  - (4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:

- (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
  - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

## 2. Upset

- a. Except as provided in Parts II.B.2.b. and c., a discharge which results from an upset need not meet the applicable discharge limitations specified in Part I.A. of this Permit if:
- (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
  - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
    - (i) An upset occurred;
    - (ii) The Permittee can identify the specific cause(s) of the upset;
    - (iii) The Permittee's treatment facility was being properly operated at the time of the upset; and
    - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.
- b. Notwithstanding the provisions of Part II.B.2.a., a discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not exempted from the discharge limitations specified in Part I.A. of this Permit unless:
- (1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the facility during a 24-hour period without an increase in volume from

precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes.

In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and

- (2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.
- c. The Permittee has the burden of establishing that each of the conditions of Parts II.B.2.a. and b. have been met to qualify for an exemption from the discharge limitations specified in Part I.A. of this Permit.

## **C. PERMIT CONDITIONS AND RESTRICTIONS**

### **1. Prohibition against Discharge from Facilities Not Certified**

- a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or
- b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

### **2. Permit Modification, Suspension, Termination, and Revocation**

- a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
  - (1) The violation of any term or condition of this Permit;
  - (2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts;

- (3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit;
  - (4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
  - (5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;
  - (6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
  - (7) The threat of the Permittee's discharge on human health or welfare; or
  - (8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.
- b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

**3. Automatic Expiration of Permits for New or Increased Discharges**

- a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.
- b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.
- c. Construction has begun when the owner or operator has:
  - (1) Begun, or caused to begin as part of a continuous on-site construction program:
    - (i) Any placement, assembly, or installation of facilities or equipment; or
    - (ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
  - (2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.



- d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.
- e. If this permit was issued for a “new discharger” or “new source” associated with a “surface coal mine” it shall expire eighteen months after issuance if “construction” has not begun during that eighteen-month period, unless the Permittee has not started “construction” pending issuance of a permit by the “ASMC” and at the time the NPDES permit was issued had complied with the application requirements of the “ASMC” Administrative Code Title 880. In such cases, the NPDES permit shall expire 18 months after issuance of the “ASMC” permit if “construction” has not begun during that eighteen-month period. This period shall be tolled by any administrative request for hearing or an administrative or judicial stay.

#### **4. Transfer of Permit**

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

#### **5. Groundwater**

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

#### **6. Property and Other Rights**

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

### **D. RESPONSIBILITIES**

#### **1. Duty to Comply**

- a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the

regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.

- c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and Code of Alabama 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by Code of Alabama 1975, §22-22-1 et. seq., as amended.
- d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.
- e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or local government permits, certifications, licenses, or other approvals.
- f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.
- g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

## **2. Change in Discharge**

- a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations specified in Part I.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

## **3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition**

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or

prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A. of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

**4. Compliance with Water Quality Standards and Other Provisions**

- a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.
- b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page 1 of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.
- c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

**5. Compliance with Statutes and Rules**

- a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.
- b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

**6. Right of Entry and Inspection**

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

- d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

**7. Duty to Reapply or Notify of Intent to Cease Discharge**

- a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration.
- b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-.09.
- c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit as provided by ADEM Admin. Code r. 335-6-6-.06, and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

## **PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS**

### **A. CIVIL AND CRIMINAL LIABILITY**

#### **1. Tampering**

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

#### **2. False Statements**

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

#### **3. Permit Enforcement**

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

#### **4. Relief From Liability**

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

### **B. OIL AND HAZARDOUS SUBSTANCE LIABILITY**

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

### **C. AVAILABILITY OF REPORTS**

Except for data determined to be confidential under Code of Alabama 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

### **D. DEFINITIONS**

1. Acid or ferruginous mine drainage - means mine drainage which, before any treatment, either has a pH of less than 6 or a total iron concentration equal to or greater than 10 mg/l.
2. Alabama Environmental Management Act (AEMA) - means Code of Alabama 1975, §§22-22A-1 et. seq., as amended.

3. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §§22-22-1 et. seq., as amended.
4. Alkaline mine drainage - means mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/l.
5. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
6. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.
7. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand
8. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
9. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
10. Coal Mine - means an area, on or beneath land, used or disturbed in activities related to the extraction, removal, or recovery of coal from natural or artificial deposits, including active mining and reclamation.
11. Coal Preparation Plant - means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility.
12. Coal Preparation Plant Associated Areas - means the coal preparation plant yards, immediate access roads, coal refuse piles and coal storage piles and facilities.
13. Coal Preparation Plant Water Circuit - means all pipes, channels, basins, tanks, and all other structures and equipment that convey, contain, treat, or process any water that is used in coal preparation processes within a coal preparation plant.
14. Coal Refuse Disposal Pile - means any coal refuse deposited on the earth and intended as permanent disposal or long-term storage (greater than 180 days) of such material, but does not include coal refuse deposited within the active mining area or coal refuse never removed from the active mining area.
15. Controlled Surface Mine Drainage – means any surface mine drainage that is pumped or siphoned from the active mining area.
16. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
17. Daily maximum - means the highest value of any individual sample result obtained during a day.
18. Daily minimum - means the lowest value of any individual sample result obtained during a day.
19. Day - means any consecutive 24-hour period.

20. Department - means the Alabama Department of Environmental Management.
21. Director - means the Director of the Department or his authorized representative or designee.
22. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).
23. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES permit.
24. DO - means dissolved oxygen.
25. E. coli – means the pollutant parameter Escherichia coli.
26. 8HC - means 8-hour composite sample, including any of the following:
  - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
  - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
27. EPA - means the United States Environmental Protection Agency.
28. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.
29. Flow – means the total volume of discharge in a 24-hour period.
30. Geometric Mean - means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
31. Grab Sample - means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
32. Indirect Discharger - means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
33. Industrial User - means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
34. mg/L - means milligrams per liter of discharge.
35. MGD - means million gallons per day.
36. Monthly Average - means, other than for E. coli bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for E. coli bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements

taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)

37. New Discharger - means a person owning or operating any building, structure, facility or installation:
  - a. From which there is or may be a discharge of pollutants;
  - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and
  - c. Which has never received a final effective NPDES permit for dischargers at that site.
  
38. New Source - means:
  - a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and
  - b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
    - (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or
    - (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.
  
39. NH<sub>3</sub>-N - means the pollutant parameter ammonia, measured as nitrogen.
  
40. 1-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
  
41. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.
  
42. Point Source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. §1362(14).
  
43. Pollutant - includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.
  
44. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.
  
45. Preparation, Dry - means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.



46. Preparation, Wet - means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.
47. Privately Owned Treatment Works - means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
48. Publicly Owned Treatment Works (POTW) - means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
49. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".
50. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
51. 10-year, 24-hour precipitation event - means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
52. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.
53. TON - means the pollutant parameter Total Organic Nitrogen.
54. TRC - means Total Residual Chlorine.
55. TSS – means the pollutant parameter Total Suspended Solids
56. Total Year-to-Date discharge limitation - means the sum of the discharge mass flow rates of a pollutant on all previous days within a calendar year. For days when data has not been collected, the mass flow rates shall be assumed to be equal to the most recent calculated daily mass flow rate.
57. Treatment facility and treatment system - means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.
58. 24HC - means 24-hour composite sample, including any of the following:
  - a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
  - b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

- c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
59. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.
60. 2-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
61. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.
62. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.
63. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
64. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

## **E. SEVERABILITY**

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

## **F. PROHIBITIONS AND ACTIVITIES NOT AUTHORIZED**

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.
2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.
3. Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.

4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

## **PART IV SPECIAL REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS**

### **A. DISCHARGES TO IMPAIRED WATERS**

1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.
2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.
3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

### **B. PRECIPITATION EVENT DISCHARGE LIMITATIONS**

#### **1. Monitoring for Claims of Precipitation Event Discharge Limitation Exemption**

Any sample of discharge collected in accordance with Parts I.C.1.a. and b. for which the Permittee submits a claim of exemption pursuant to Part IV.B.2., shall be collected within 48 hours after the commencement of the 24-hour precipitation event and prior to the cessation of the discharge or increased discharge. The sample shall be analyzed for each effluent characteristic as specified in Part I.A.2. Within 24 to 36 hours after the cessation of the 24-hour precipitation event, the Permittee shall collect an additional sample of the discharge and shall analyze such sample for each effluent characteristic specified in Part I.A.1. of this Permit.

#### **2. Precipitation Event Discharge Limitation Exemption Submittal**

Excluding discharges of drainage from the underground workings of an underground coal mine which are not commingled with other drainage eligible for precipitation event discharge limitations, any discharge or increase in the volume of a discharge which is caused by an applicable 24-hour precipitation event as described in Part IV.B.3. and which occurs during or within 24-hours after such event, may be exempt from the discharge limitations specified in Part I.A. provided that the discharge is addressed in Parts IV.B.4. through 8. and the Permittee submits a written claim of exemption to the Director with the DMR required to be submitted by Part I.D. of this Permit, which shall contain:

- a. Persuasive evidence that the discharge or increase in the volume of a discharge was caused by an applicable 24-hour precipitation event;
- b. Persuasive evidence of the amount of precipitation occurring during the applicable 24-hour precipitation event;
- c. Persuasive evidence demonstrating the origin of the drainage causing a discharge;
- d. The day and time at which the 24-hour precipitation event commenced and ceased;
- e. The volume or amount in inches of the applicable 24-hour precipitation event; and
- f. The results of monitoring conducted pursuant to Part I.A. of this Permit, if required thereby.

**3. Applicable 24-Hour Precipitation Events**

Applicable 24-hour precipitation events include those that are greater than 1-year, 24-hour precipitation events or less than, equal to, or greater than 2-year, 24-hour precipitation events, and 10-year, 24-hour precipitation events.

**4. 24-Hour Precipitation Event Greater Than a 1-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events**

Discharge limitations listed in Part I.A.2. may apply to discharges of acid or ferruginous drainage from coal refuse disposal piles, provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 1-year, 24-hour precipitation event, but less than or equal to a 10-year, 24-hour precipitation event.

**5. 24-Hour Precipitation Event Less Than or Equal to a 2-Year, 24-Hour Precipitation Event**

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from acid or ferruginous mining areas (excluding discharges from steep slope mining areas, discharges from mountaintop removal operations, discharges from controlled surface mine, and discharges from underground workings of underground mines), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event less than or equal to a 2-year, 24-hour precipitation event.

**6. 24-Hour Precipitation Event Greater Than a 2-Year, 24-Hour Precipitation Event, but Less Than a 10-Year, 24-Hour Precipitation Events**

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from acid or ferruginous mining areas (excluding discharges from steep slope mining areas, discharges from mountaintop removal operations, discharges from controlled surface mine, and discharges from underground workings of underground mines), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 2-year, 24-hour precipitation event, but less than or equal to a 10-year, 24-hour precipitation event.

**7. 24-Hour Precipitation Event Less Than or Equal to a 10-Year, 24-Hour Precipitation Event**

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from steep slope mining areas, discharges of drainage from mountaintop removal areas, discharges of alkaline drainage (excluding discharges from underground workings of underground mines and that are not commingled with other discharges), and discharges from coal preparation plant associated areas

(excluding acid or ferruginous mine drainage from coal refuse disposal piles), provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event less than or equal to a 10-year, 24-hour precipitation event.

**8. 24-Hour Precipitation Event Greater Than a 10-Year, 24-Hour Precipitation Event**

Discharge limitations listed in Part I.A.2. may apply to discharges of drainage from alkaline, acid, or ferruginous mining areas, discharges of steep slope mining areas, discharges of drainage from mountaintop removal operations, discharges of drainage from coal preparation plants and associated areas, discharges of drainage from coal refuse piles, the underground workings of an underground coal mine which are commingled with other discharges eligible for precipitation event discharge limitations, and discharges from reclamation areas, provided that the Permittee has met the submittal requirements of Part IV.B.2., for any discharge or increase in the volume of a discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

**C. POST-MINING DISCHARGE LIMITATIONS**

1. Excluding discharges from the underground workings of an underground coal mine, any discharge shall be exempt from the discharge limitations specified in Part I.A.1., provided that:
  - a. All mining in the drainage basin(s) associated with the discharge has ceased;
  - b. Revegetation has been established on all areas mined in the drainage basin(s) associated with the discharge;
  - c. The Permittee has been granted, in writing, a Phase II Bond Release, if applicable, by the ASMC for all areas mined in the drainage basin(s) associated with the discharge;
  - d. The Permittee has certified to the Director, in writing, its compliance with Parts IV.C.1.a. through c.; and
  - e. The Permittee's request for post-mining discharge limitations has been approved by the Department in writing.
2. Any discharge, which pursuant to Part IV.C.1. is exempt from the discharge limitations specified in Part I.A.1., shall be limited and monitored by the Permittee as specified in Part I.A.3.

**D. pH EXEMPTION DISCHARGE LIMITATIONS**

Where the application of neutralization and sedimentation treatment technology results in the Permittee's inability to comply with applicable total manganese discharge limitations, the daily maximum discharge limitation for pH shall be 10.5 s.u. However, the discharge shall not cause the in-stream pH values to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u. Use of this exemption must be noted on the DMR Form when submitted for each eligible outfall. Documentation justifying the necessity for the exemption must be also be submitted at the time of the associated DMR submittal.

**E. MANGANESE EXEMPTION DISCHARGE LIMITATIONS**

Limitations and monitoring requirements for total manganese do not apply if the drainage, before any treatment, has a pH equal to or more than 6.0 s.u. and a total iron concentration of less than 10.0 mg/l. Use of this exemption must be noted on the Discharge Monitoring Report (DMR) form when submitted for each

eligible outfall. Documentation of alkaline mine drainage before treatment must also be submitted at the time of or prior to the associated DMR submittal.

**F. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR ACUTE TOXICITY**

Except as provided below, the Permittee shall perform 48-hour acute toxicity screening tests on the discharges required to be tested for acute toxicity in Part I.A. of this Permit.

The Permittee may certify, in writing, that the activities at the site at the time of sample collection will result in representative discharges, and therefore perform the toxicity tests on only the samples collected from the representative outfalls. The certification must be signed by a responsible official of the Permittee as defined in ADEM Admin Code r. 335-6-6-.09 and include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or 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."

**1. Test Requirements**

- a. The tests shall be performed using undiluted effluent.
- b. Any test where survival in the effluent concentration is less than 90% and statistically lower than the control indicates acute toxicity and constitutes noncompliance with this Permit.

**2. General Test Requirements**

- a. A grab sample shall be obtained for use in above biomonitoring tests. The holding time for each sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-012 or most current edition or another control water selected by the Permittee and approved by the Department.
- b. Effluent toxicity tests in which the control survival is less than 90% or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period.
- c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.
- d. Should results from five consecutive testing periods indicate that the effluent does not exhibit acute toxicity, the Permittee may request, in writing, that the Toxicity monitoring and reporting requirements be suspended. It remains the responsibility of the Permittee to comply with the Toxicity monitoring and reporting requirements until written authorization to suspend the monitoring and reporting is received by the Permittee from the Director.

**3. Reporting Requirements**

- a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).
- b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 6. of this part, an effluent toxicity report containing the information in Section 6. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

**4. Additional Testing Requirements**

- a. If acute toxicity is indicated (noncompliance with permit limit), the Permittee shall perform two additional valid acute toxicity tests in accordance with these procedures. The toxicity tests shall be performed on new samples collected during the first discharge event after becoming aware of the acute toxicity. The additional samples shall be collected a minimum of 12 hours apart, or sooner if the discharge is not expected to continue for 12 hours. In the event that the discharge ceases prior to collection of the second additional sample, the sample shall be collected during the beginning of the next discharge event. The results of these tests shall be submitted no later than 28 days following the month in which the tests were performed. Additional testing sample collection and analysis timeframes may be extended, as necessary, to obtain the samples during discharges.
- b. After evaluation of the results of the additional tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The Permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

**5. Test Methods**

The tests shall be performed in accordance with the latest edition of the "EPA Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" and shall be performed using the fathead minnow (*Pimephales promelas*) and the cladoceran (*Ceriodaphnia dubia*).

**6. Effluent Toxicity Testing Reports**

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate this requirement or may increase or decrease the frequency of submittals.

- a. Introduction
  - (1) Facility Name, location and county
  - (2) Permit number
  - (3) Toxicity testing requirements of permit
  - (4) Name of receiving water body



- (5) Contract laboratory information (if tests are performed under contract)
    - (i) Name of firm
    - (ii) Telephone number
    - (iii) Address
  - (6) Objective of test
- b. Plant Operations
- (1) Discharge operating schedule (if other than continuous)
  - (2) Volume of discharge during sample collection to include Mean daily discharge on sample collection date (MGD, CFS, GPM)
- c. Source of Effluent Water and Dilution Water
- (1) Effluent samples
    - (i) Sample point
    - (ii) Sample collection dates and times
    - (iii) Sample collection method
    - (iv) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
    - (v) Sample temperature when received at the laboratory
    - (vi) Lapsed time from sample collection to delivery
    - (vii) Lapsed time from sample collection to test initiation
  - (2) Dilution Water samples
    - (i) Source
    - (ii) Collection date(s) and time(s) (where applicable)
    - (iii) Pretreatment (if applicable)
    - (iv) Physical and chemical characteristics (pH, hardness, water temperature, alkalinity, specific conductivity, etc.)
- d. Test Conditions
- (1) Toxicity test method utilized
  - (2) End point(s) of test
  - (3) Deviations from referenced method, if any, and reason(s)

- (4) Date and time test started
  - (5) Date and time test terminated
  - (6) Type and volume of test chambers
  - (7) Volume of solution per chamber
  - (8) Number of organisms per test chamber
  - (9) Number of replicate test chambers per treatment
  - (10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)
  - (11) Feeding frequency, and amount and type of food
  - (12) Light intensity (mean)
- e. Test Organisms
- (1) Scientific name
  - (2) Life stage and age
  - (3) Source
  - (4) Disease treatment (if applicable)
- f. Quality Assurance
- (1) Reference toxicant utilized and source
  - (2) Date and time of most recent acute reference toxicant test(s), raw data, and current cusum chart(s)
  - (3) Results of reference toxicant test(s) (LC50, etc.), report concentration-response relationship and evaluate test sensitivity. The most recent reference toxicant test shall be conducted within 30-days of the routine.
  - (4) Physical and chemical methods utilized
- g. Results
- (1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
  - (2) Provide table of endpoints: LC50, NOAEC, Pass/Fail (as required in the applicable NPDES permit)
  - (3) Indicate statistical methods used to calculate endpoints
  - (4) Provide all physical and chemical data required by method

- (5) Results of test(s) (LC50, NOAEC, Pass/Fail, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD)

h. Conclusions and Recommendations

- (1) Relationship between test endpoints and permit limits
- (2) Action to be taken

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
WATER DIVISION**

**NPDES INDIVIDUAL PERMIT RATIONALE**

**Company Name:** Birmingham Coal and Coke Company, Inc.  
**Facility Name:** Old Union Mine  
**County:** Winston  
**Permit Number:** AL0077771  
**Prepared by:** David Hearn  
**Date:** January 24, 2019  
**Receiving Waters:** Little Blackwater Creek, Indian Creek, Unnamed Tributary to Indian Creek, Unnamed Tributary to Black Creek, Water Branch, Unnamed Tributary to Water Branch & Browns Creek  
**Permit Coverage:** New Source Coal Mine, Dry Preparation, Transportation and Storage, Reclamation, and Associated Areas  
**SIC Code:** 1221

The Department has made a tentative determination that the available information is adequate to support issuance and of this permit.

This proposed permit covers a new source coal mine, dry preparation, transportation and storage, reclamation, and associated areas.

This proposed permit authorizes treated discharges into stream segments, other State waters, or local watersheds that currently have a water quality use classification of Fish & Wildlife (F&W) (ADEM Admin. Code ch. 335-6-11). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of this classification.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS) for the receiving streams.

The active discharge limitations for the daily maximum and minimum of pH, and the monthly average and daily maximum of Total Suspended Solids (TSS), Total Iron as Fe, and Total Manganese as Mn are based on the New Source Performance Standards (NSPS) Effluent Limit Guidelines (ELGs) found in 40 CFR Part 434.35 for acid or ferruginous mine drainage.

However, the Permittee may submit documentation that discharges from the site are alkaline mine drainage (*i.e.*, the drainage prior to treatment has a pH equal to or more than 6.0 s.u. and a Total Fe concentration of less than 10.0 mg/L). Part IV.E. of the proposed permit provides that limitations and monitoring requirements for Total Manganese as Mn do not apply if the Permittee has provided the documentation of alkaline mine drainage. In such a case, the active mining discharge limitations for the daily maximum and minimum of pH and Total Iron as Fe are based on the NSPS ELGs found in 40 CFR Part 434.45 for alkaline mine drainage.

The instream water quality standards for pH in streams classified as F&W are 6.0 – 8.5 s.u. per ADEM Admin. Code r. 335-6-10-.09. However, due to the fact that discharges are expected only in response to rain events, it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the instream pH based on the low discharge/stream flow ratio.

The ELGs of 40 CFR Part 434.62 allow the pH level in the final discharge to exceed 9.0 s.u. when neutralization and sedimentation treatment technology results in the Permittee's inability to comply with the applicable total manganese limitations. The acidity and metals composition of each discharge is unique and sometimes a pH value of 10.5 is necessary for the removal of manganese. However, the discharge shall not cause the in-stream pH to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u., nor greater than 8.5 s.u. in accordance with ADEM Admin. Code r. 335-6-10-.09.

Post-mining discharge limitations are included in addition to the active mining and precipitation event discharge limitations. The post-mining discharge limitations are based on 40 CFR Part 434, Subpart E. This permit is more restrictive than the BAT Guidelines in that the Permittee, in order to qualify for the post-mining discharge limitations, must have received a Phase II Bond Release from the Alabama Surface Mining Commission for all areas mined in the drainage basin(s) associated with the discharge. The reason a Phase II Bond Release is required for post-mining limitations rather than a Phase I Bond Release is that topsoil replacement and the commencement of revegetation are frequently important factors in controlling the effluent quality from a coal mine. The Department has determined that tying the post-mining discharge limitations to the Phase II Bond Release will effectively protect water quality in Alabama as it relates to coal mining.

The precipitation event discharge limitations for the daily minimum and maximum for pH and the daily maximums for Total Iron as Fe and Settleable Solids are afforded under certain conditions and do not apply automatically. These alternative technology based limits are based on the ELGs for precipitation events found in 40 CFR Part 434.63.

Additional effluent monitoring for Specific Conductance, Sulfate as S, Total Dissolved Solids (TDS), and Acute Whole Effluent Toxicity (WET) testing is required so that future determinations can be made as to whether or not a reasonable potential to cause or contribute to an excursion of numeric or narrative WQS exists from this and similar discharges.

The applicant has, in accordance with 40 CFR Part 122.21 and their NPDES permit application, submitted representative effluent and background stream data for metals, cyanide, and total phenols as part of the application. The Department has acknowledged that the other Part A, B, and C pollutants listed in EPA Form 2C and 2D are not believed to be present in the waste stream due to the processes involved in the mining activity. Therefore, testing for the other Part A, B, and C pollutants listed in EPA Form 2C and 2D is not required. The Department has reviewed available data in ALAWADR, ADEM's water quality database, and found nothing to contradict the data submitted by the applicant.

The Department completed a reasonable potential analysis (RPA) of the discharges based on the laboratory data provided in the application. The RPA indicates whether or not pollutants in treated effluent have the potential to contribute to excursions of Alabama's in-stream WQS. Based on the analytical data, it appears that reasonable potential may exist to cause an in-stream water quality criteria exceedance for Selenium (Se) and Nickel (Ni) at Outfall 014 and for Selenium (Se), Nickel (Ni) and Cyanide at outfalls 007-050. The WQBELs were calculated as follows:

$$c_{dmax} = \frac{(Q_d + Q_e) \times c_r - Q_s \times c_s}{Q_d}$$

where  $c_{dmax}$  = limitation ( $\mu\text{g/L}$ )  
 $Q_d$  = expected average daily discharge flow rate ( $\text{cfs}$ )  
 $Q_s$  = calculated or statistical stream flow ( $\text{cfs}$ )  
 $c_r$  = water quality criterion ( $\mu\text{g/L}$ )  
 $c_s$  = concentration of pollutant upstream of discharge ( $\mu\text{g/L}$ )

Monitor only requirements are proposed for Total Recoverable Selenium, Dissolved Nickel, and Free Available Cyanide during applicable precipitation events. The Permittee has the responsibility to establish and maintain appropriate erosion/sediment control and pollution abatement practices to effectively treat the discharge for all precipitation events to comply with applicable state water quality standards at all times. The Department may use

the reported information to make a determination whether a water quality standard has been exceeded during the precipitation event.

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) this permit requires the Permittee to design and implement a Spill Prevention Control and Countermeasures (SPCC) plan for all stored chemicals, fuels and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill.

In accordance with ADEM Admin. Code r. 335-6-3-.07 the design professional engineer (PE), as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the Permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's WQS, when such treatment facilities are properly operated.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a PE registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State WQS. By Memorandum of Understanding with the Alabama Surface Mining Commission (ASMC) the PAP for coal operations is reviewed/approved by ASMC. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State WQS.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State WQS above numeric or narrative criteria, 40 CFR § 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State WQS.

The applicant is not proposing discharges into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is not proposing discharges of pollutant(s) to a water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is not proposing discharges of pollutant(s) to an ADEM identified Tier I water.

The proposed permit action authorizes new discharges of pollutants to receiving waters determined by the Department to be waters where the quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water (Tier II). Pursuant to ADEM Admin. Code r. 335-6-10 (Antidegradation Policy and Implementation of the Antidegradation Policy), the applicant has submitted and the Department has reviewed and considered information regarding (1) demonstration of necessity/importance, (2) alternatives analysis, and (3) calculations of total annualized costs for technically feasible treatment alternatives regarding the proposed new discharges to Tier II waters. The Department has determined, based on the applicant's demonstration, that the proposed new discharges to the Tier II waters are necessary for important economic or social development in the area in which the waters are located.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
WATER DIVISION**

**ANTIDEGRADATION RATIONALE**

**Company Name:** Birmingham Coal & Coke Company, Inc.  
**Facility Name:** Old Union Mine  
**County:** Winston  
**Permit Number:** AL0077771  
**Prepared by:** David Hearn  
**Date:** March 7, 2019  
**Receiving Waters:** Little Blackwater Creek, Indian Creek, Unnamed Tributary to Indian Creek, Unnamed Tributary to Black Creek, Water Branch, Unnamed Tributary to Water Branch & Browns Creek  
**Stream Category:** Tier II as defined by ADEM Admin. Code 335-6-10-.12  
**Discharge Description:** This proposed permit covers a new Source coal mine, dry preparation, transportation and storage, reclamation, and associated areas which discharge to surface waters.


**The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-.12(7)(c):**

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-.12(9). The applicant has demonstrated that there are no technically or economically viable treatment options in its alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and social benefits will result from this project:

1. The Permittee estimates that annual state and local taxes will be paid in the form of a \$25,000 Corporate Income tax, a 4% State of Alabama Income Tax, \$20,000 in taxes withheld and paid on employees, a \$9,000 Excise Tax, \$25,000-\$30,000 Sales/Use Tax on Equipment and Supplies, and a \$7,000 Unemployment Tax.
2. The Facility will produce a high quality steam grade coal to be sold to Alabama Power Co. for the generation of energy. With the issuance of the permit, it will not only maintain its work force, but also create support industries.
3. The Facility will be paying taxes to the local community and provide additional employment.

The Department has determined that the discharge proposed by the permit applicant is necessary for important economic and social development in the area of the outfall location in the receiving water.

**Reviewed By:** 

**Date:** 3-8-19

Facility Name: **Birmingham Coal & Coke Company, Inc. - Old Union Mine**

NPDES No.: **AL0077771**

Outfalls 001-006 <sup>12345</sup>

Freshwater F&W classification.																Human Health Consumption Fish only (µg/l)			
Freshwater F&W classification.				Freshwater Acute (µg/l) $Q_a = 7Q10$					Freshwater Chronic (µg/l) $Q_a = 7Q10$					Carcinogen $Q_a =$ Annual Average Non-Carcinogen $Q_a = 7Q10$					
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>max</sub> )	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>max</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	No	0	0	-	-	-	-	3.73E+02	4.32E+04	8.63E+03	No
2	Arsenic		YES	0.37	0	340.000	29532.678	5906.536	No	0.37	0	150.000	17298.467	3459.693	No	3.03E-01	1.27E-02	2.54E-03	No
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	2.014	175.102	35.020	No	0	0	0.246	28.439	5.688	No	-	-	-	-
5	Chromium/ Chromium III			0	0	569.763	49543.416	9908.683	No	0	0	74.115	8568.069	1713.614	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	1391.270	278.254	No	0	0	11.000	1271.664	254.333	No	-	-	-	-
7	Copper			1.35	0	13.439	1052.551	210.510	No	1.35	0	8.958	880.619	176.124	No	1.30E+03	1.50E+05	3.00E+04	No
8	Lead			0	0	64.581	5615.632	1123.126	No	0	0	2.517	250.939	50.189	No	-	-	-	-
9	Mercury			0	0	2.400	209.690	41.738	No	0	0	0.012	1.387	0.277	No	4.24E-02	4.90E+00	9.81E-01	No
10	Nickel			0	0	468.236	40715.141	8143.028	No	0	0	102.983	11905.461	2381.092	No	1.97E+03	2.27E+05	4.55E+04	No
11	Selenium			0	0	20.000	1739.087	347.817	No	0	0	5.000	578.029	115.606	No	2.43E+03	2.81E+05	5.62E+04	No
12	Silver			0	0	3.217	279.711	55.942	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	No	0	0	-	-	-	-	2.74E-01	3.16E+01	6.33E+00	No
14	Zinc			0	0	117.180	10189.351	2037.870	No	0	0	118.139	13657.553	2731.511	No	1.49E+04	1.72E+06	3.44E+05	No
15	Cyanide			0	20	22.000	1912.996	382.599	No	0	20	5.200	601.160	120.230	No	9.33E+03	1.08E+06	2.16E+05	No
16	Total Phenolic Compounds			0	40	-	-	-	-	0	40	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-

<sup>1</sup>Outfalls 001-006 discharge to Little Blackwater Creek. The 7Q10 for the receiving stream is 9.93 cfs. The mean annual flow is 165.16 cfs.

This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 004 is reported to have the highest discharge flow rate of 0.056 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

<sup>5</sup>Instream samples taken for Little Blackwater Creek April 19, 2017



Facility Name: Birmingham Coal & Coke Company, Inc. - Old Union Mine

NPDES No.: AL007771 Outfall 014<sup>234</sup>

Freshwater F&W classification.																Human Health Consumption Fish only (µg/l)			
Freshwater F&W classification.				Freshwater Acute (µg/l) Q <sub>a</sub> = 1Q10						Freshwater Chronic (µg/l) Q <sub>a</sub> = 7Q10						Carcinogen Q <sub>a</sub> = Annual Average Non-Carcinogen Q <sub>a</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>adm</sub> )	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>adm</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	No	0	0	-	-	-	No	3.73E+02	3.73E+02	7.47E+01	No
2	Arsenic		YES	0	0	340,000	340,000	68,000	No	0	0	150,000	150,000	30,000	No	3.03E-01	1.27E-02	2.54E-03	No
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	No
4	Cadmium			0	0	2.014	2.014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	No
5	Chromium/ Chromium III			0	0	569,763	569,763	113,953	No	0	0	74,115	74,115	14,823	No	-	-	-	No
6	Chromium/ Chromium VI			0	0	16,000	16,000	3,200	No	0	0	11,000	11,000	2,200	No	-	-	-	No
7	Copper			0	0	13,439	13,439	2,688	No	0	0	8,956	8,956	1,791	No	1.30E+03	1.30E+03	2.60E+02	No
8	Lead			0	0	64,581	64,581	12,916	No	0	0	2,517	2,517	0.503	No	-	-	-	No
9	Mercury			0	0	2,400	2,400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No
10	Nickel	YES		0	24	468,236	468,236	93,647	No	0	24	102,983	102,983	20,597	Yes	1.97E+03	1.97E+03	3.93E+02	No
11	Selenium	YES		0	1	20,000	20,000	4,000	No	0	1	5,000	5,000	1,000	Yes	2.43E+03	2.43E+03	4.86E+02	No
12	Silver			0	0	3,217	3,217	0.643	No	0	0	-	-	-	No	-	-	-	No
13	Thallium			0	0	-	-	-	No	0	0	-	-	-	No	2.74E-01	2.74E-01	5.47E-02	No
14	Zinc			0	0	117,180	117,180	23,436	No	0	0	118,139	118,139	23,628	No	1.49E+04	1.49E+04	2.98E+03	No
15	Cyanide	YES		0	20	22,000	22,000	4,400	Yes	0	20	5,200	5,200	1,040	Yes	9.33E+03	9.33E+03	1.87E+03	No
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-	No	-	-	-	No
17	Hardness (As CaCO <sub>3</sub> )			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	No

<sup>1</sup>Outfall 014 discharges to a UT of Indian Creek. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 0.19 cfs. This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 014 is reported to have a discharge flow rate of 0.109 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL007771's Outfall 014-1 on March 27, 2017.

Facility Name: Birmingham Coal & Coke Company, Inc. - Old Union Mine  
 NPDES No.: AL0077771 Outfalls 009, 010, 013, 016-020, & 023-025<sup>12A</sup>

Freshwater F&W classification.														Freshwater Acute (µg/l) Q <sub>a</sub> = 1Q10					Freshwater Chronic (µg/l) Q <sub>a</sub> = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q <sub>a</sub> = Annual Average Non-Carcinogen Q <sub>a</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>disch</sub> )	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>disch</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?								
1	Antimony			0	0	-	-	-	No	0	0	-	-	-	No	3.73E+02	3.73E+02	7.47E+01	No								
2	Arsenic		YES	0	0	340.000	340.000	68.000	No	0	0	150.000	150.000	30.000	No	3.03E-01	1.27E-02	2.54E-03	No								
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	-								
4	Cadmium			0	0	2.014	2.014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	-								
5	Chromium/ Chromium III			0	0	569.763	569.763	113.953	No	0	0	74.115	74.115	14.823	No	-	-	-	-								
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	-								
7	Copper			0	0	13.439	13.439	2.688	No	0	0	8.956	8.956	1.791	No	1.30E+03	1.30E+03	2.60E+02	No								
8	Lead			0	0	64.581	64.581	12.916	No	0	0	2.517	2.517	0.503	No	-	-	-	-								
9	Mercury			0	0	2.400	2.400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No								
10	Nickel			0	0	468.236	468.236	93.647	No	0	0	102.983	102.983	20.597	No	1.97E+03	1.97E+03	3.93E+02	No								
11	Selenium			0	0	20.000	20.000	4.000	No	0	0	5.000	5.000	1.000	No	2.43E+03	2.43E+03	4.86E+02	No								
12	Silver			0	0	3.217	3.217	0.643	No	0	0	-	-	-	No	-	-	-	-								
13	Thallium			0	0	-	-	-	No	0	0	-	-	-	No	2.74E-01	2.74E-01	5.47E-02	No								
14	Zinc			0	0	117.180	117.180	23.436	No	0	0	118.139	118.139	23.628	No	1.49E+04	1.49E+04	2.98E+03	No								
15	Cyanide	YES		0	20	22.000	22.000	4.400	Yes	0	20	5.200	5.200	1.040	Yes	9.33E+03	9.33E+03	1.87E+03	No								
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-	No	-	-	-	-								
17	Hardness (As CaCO <sub>3</sub> )			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	-								

<sup>1</sup>Outfalls 009, 010, 013, 016-020, & 023-025 discharge to a UT to Indian Creek. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 0.19 cfs. This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 010 is reported to have the highest discharge flow rate of 0.368 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

Facility Name: **Birmingham Coal & Coke Company, Inc. - Old Union Mine**

NPDES No.: **AL0077771** Outfalls **007, 008, 011, 012, 015, 021, 022, 026, 027, & 039**<sup>1245</sup>

Freshwater F&W classification.														Freshwater Acute (µg/l) Q <sub>a</sub> = 1Q10					Freshwater Chronic (µg/l) Q <sub>a</sub> = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q <sub>a</sub> = Annual Average Non-Carcinogen Q <sub>a</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>daily</sub> )	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?								
1	Antimony			0	0	-	-	-	No	0	0	-	-	-	No	3.73E+02	3.73E+02	7.47E+01	No								
2	Arsenic		YES	0	0	340.000	340.000	68.000	No	0	0	150.000	150.000	30.000	No	3.03E-01	1.27E-02	2.54E-03	No								
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	-								
4	Cadmium			0	0	2.014	2.014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	-								
5	Chromium/ Chromium III			0	0	569.763	569.763	113.953	No	0	0	74.115	74.115	14.823	No	-	-	-	-								
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	-								
7	Copper			0	0	13.439	13.439	2.688	No	0	0	8.956	8.956	1.791	No	1.30E+03	1.30E+03	2.60E+02	No								
8	Lead			0	0	64.581	64.581	12.916	No	0	0	2.517	2.517	0.503	No	-	-	-	-								
9	Mercury			0	0	2.400	2.400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No								
10	Nickel			0	0	468.236	468.236	93.647	No	0	0	102.983	102.983	20.597	No	1.97E+03	1.97E+03	3.93E+02	No								
11	Selenium			0.96	0	20.000	20.000	4.000	No	0.96	0	5.000	5.000	1.000	No	2.43E+03	2.43E+03	4.86E+02	No								
12	Silver			0	0	3.217	3.217	0.643	No	0	0	-	-	-	No	-	-	-	-								
13	Thallium			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	-								
14	Zinc			0	0	117.180	117.180	23.436	No	0	0	118.139	118.139	23.628	No	2.74E-01	2.74E-01	5.47E-02	No								
15	Cyanide	YES		0	20	22.000	22.000	4.400	Yes	0	20	5.200	5.200	1.040	Yes	9.33E+03	9.33E+03	1.87E+03	No								
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-	No	-	-	-	-								
17	Hardness (As CaCO <sub>3</sub> )			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	-								

<sup>1</sup>Outfalls 007, 008, 011, 012, 015, 021, 022, 026, 027, & 039 discharge to Indian Creek. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 0.02 cfs. This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 021 is reported to have the highest discharge flow rate of 0.070 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

Facility Name: Birmingham Coal & Coke Company, Inc. - Old Union Mine

NPDES No.: AL0077771

Outfalls 028 & 029<sup>1,2,4</sup>

Freshwater F&W classification.																Human Health Consumption Fish only (µg/l)			
Freshwater F&W classification.				Freshwater Acute (µg/l) Q <sub>s</sub> = 1Q10						Freshwater Chronic (µg/l) Q <sub>s</sub> = 7Q10						Carcinogen Q <sub>s</sub> = Annual Average Non-Carcinogen Q <sub>s</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>adm</sub> )	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>adm</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>avg</sub> )	20% of Draft Permit Limit	RP?
1	Antimony		YES	0	0	-	-	-	No	0	0	-	-	-	No	3.73E+02	3.73E+02	7.47E+01	No
2	Arsenic			0	0	340.000	340.000	68.000	No	0	0	150.000	150.000	30.000	No	3.03E-01	1.27E-02	2.54E-03	No
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	No
4	Cadmium			0	0	2.014	2.014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	No
5	Chromium/ Chromium III			0	0	569.763	569.763	113.953	No	0	0	74.115	74.115	14.823	No	-	-	-	No
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	No
7	Copper			0	0	13.439	13.439	2.688	No	0	0	8.956	8.956	1.791	No	1.30E+03	1.30E+03	2.60E+02	No
8	Lead			0	0	64.581	64.581	12.916	No	0	0	2.517	2.517	0.503	No	-	-	-	No
9	Mercury			0	0	2.400	2.400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No
10	Nickel			0	0	468.236	468.236	93.647	No	0	0	102.983	102.983	20.597	No	1.97E+03	1.97E+03	3.93E+02	No
11	Selenium			0	0	20.000	20.000	4.000	No	0	0	5.000	5.000	1.000	No	2.43E+03	2.43E+03	4.86E+02	No
12	Silver			0	0	3.217	3.217	0.643	No	0	0	-	-	-	No	-	-	-	No
13	Thallium			0	0	-	-	-	No	0	0	-	-	-	No	2.74E-01	2.74E-01	5.47E-02	No
14	Zinc			0	0	117.180	117.180	23.436	No	0	0	118.139	118.139	23.628	No	1.49E+04	1.49E+04	2.98E+03	No
15	Cyanide	YES		0	20	22.000	22.000	4.400	Yes	0	20	5.200	5.200	1.040	Yes	9.33E+03	9.33E+03	1.87E+03	No
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-	No	-	-	-	No
17	Hardness (As CaCO3)			0	0	-	-	-	No	0	0	-	-	-	No	-	-	-	No

<sup>1</sup>Outfalls 028 & 029 discharge to a UT of Black Creek. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 0.38 cfs. This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 029 is reported to have the highest discharge flow rate of 0.203 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

Facility Name: Birmingham Coal & Coke Company, Inc. - Old Union Mine

NPDES No.: AL0077771 Outfalls 030-038, 040, 041, & 044-046<sup>1234</sup>

Freshwater F&W classification.															Freshwater Acute (µg/l) Q <sub>a</sub> = 1Q10				Freshwater Chronic (µg/l) Q <sub>a</sub> = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q <sub>a</sub> = Annual Average Non-Carcinogen Q <sub>a</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>max</sub> )	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?								
1	Antimony			0	0	-	-	-	No	0	0	-	-	-		3.73E+02	3.73E+02	7.47E+01	No								
2	Arsenic		YES	0	0	340.000	340.000	68.000	No	0	0	150.000	150.000	30.000	No	3.03E-01	1.27E-02	2.54E-03	No								
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-		-	-	-	No								
4	Cadmium			0	0	2.014	2.014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	No								
5	Chromium/ Chromium III			0	0	569.763	569.763	113.953	No	0	0	74.115	74.115	14.823	No	-	-	-	No								
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	No								
7	Copper			0	0	13.439	13.439	2.688	No	0	0	8.956	8.956	1.791	No	1.30E+03	1.30E+03	2.60E+02	No								
8	Lead			0	0	64.581	64.581	12.916	No	0	0	2.517	2.517	0.503	No	-	-	-	No								
9	Mercury			0	0	2.400	2.400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No								
10	Nickel			0	0	468.236	468.236	93.647	No	0	0	102.983	102.983	20.597	No	1.97E+03	1.97E+03	3.93E+02	No								
11	Selenium			0	0	20.000	20.000	4.000	No	0	0	5.000	5.000	1.000	No	2.43E+03	2.43E+03	4.86E+02	No								
12	Silver			0	0	3.217	3.217	0.643	No	0	0	-	-	-		-	-	-	No								
13	Thallium			0	0	-	-	-	No	0	0	-	-	-		2.74E-01	2.74E-01	5.47E-02	No								
14	Zinc			0	0	117.180	117.180	23.436	No	0	0	118.139	118.139	23.628	No	1.49E+04	1.49E+04	2.98E+03	No								
15	Cyanide	YES		0	20	22.000	22.000	4.400	Yes	0	20	5.200	5.200	1.040	Yes	9.33E+03	9.33E+03	1.87E+03	No								
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-		-	-	-	No								
17	Hardness (As CaCO3)			0	0	-	-	-	No	0	0	-	-	-		-	-	-	No								

<sup>1</sup>Outfalls 030-038, 040, 041, & 044-046 discharge to a UT of Water Branch. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 0.19 cfs.

This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 040 is reported to have the highest discharge flow rate of 0.414 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

Facility Name: Birmingham Coalt & Coke Company, Inc. - Old Union Mine

NPDES No.: AL007771 Outfalls 042, 043, & 047-050<sup>12345</sup>

Freshwater F&W classification.														Freshwater Acute (µg/l) Q <sub>a</sub> = 1Q10					Freshwater Chronic (µg/l) Q <sub>a</sub> = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q <sub>a</sub> = Annual Average Non-Carcinogen Q <sub>a</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>disch</sub> )	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>c</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?								
1	Antimony			0	0	-	-	-	No	0	0	-	-	-		3.73E+02	3.73E+02	7.47E+01	No								
2	Arsenic		YES	0	0	340,000	340,000	68,000	No	0	0	150,000	150,000	30,000	No	3.03E-01	1.27E-02	2.54E-03	No								
3	Beryllium			0	0	-	-	-	No	0	0	-	-	-		-	-	-	No								
4	Cadmium			0	0	2,014	2,014	0.403	No	0	0	0.246	0.246	0.049	No	-	-	-	No								
5	Chromium/ Chromium III			0	0	569,763	569,763	113,953	No	0	0	74,115	74,115	14,823	No	-	-	-	No								
6	Chromium/ Chromium VI			0	0	16,000	16,000	3,200	No	0	0	11,000	11,000	2,200	No	-	-	-	No								
7	Copper			0	0	13,439	13,439	2,688	No	0	0	8,956	8,956	1,791	No	1.30E+03	1.30E+03	2.60E+02	No								
8	Lead			0	0	64,581	64,581	12,916	No	0	0	2,517	2,517	0.503	No	-	-	-	No								
9	Mercury			0	0	2,400	2,400	0.480	No	0	0	0.012	0.012	0.002	No	4.24E-02	4.24E-02	8.48E-03	No								
10	Nickel			0	0	468,236	468,236	93,647	No	0	0	102,983	102,983	20,597	No	1.97E+03	1.97E+03	3.93E+02	No								
11	Selenium			0	0	20,000	20,000	4,000	No	0	0	5,000	5,000	1,000	No	2.43E+03	2.43E+03	4.86E+02	No								
12	Silver			0	0	3,217	3,217	0.643	No	0	0	-	-	-		-	-	-	No								
13	Thallium			0	0	-	-	-	No	0	0	-	-	-		-	-	-	No								
14	Zinc			0	0	117,180	117,180	23,436	No	0	0	118,139	118,139	23,628	No	2.74E-01	2.74E-01	5.47E-02	No								
15	Cyanide	YES		0	20	22,000	22,000	4,400	Yes	0	20	5,200	5,200	1,040	Yes	1.49E+04	1.49E+04	2.98E+03	No								
16	Total Phenolic Compounds			0	40	-	-	-	No	0	40	-	-	-		9.33E+03	9.33E+03	1.87E+03	No								
17	Hardness (As CaCO <sub>3</sub> )			0	0	-	-	-	No	0	0	-	-	-		-	-	-	No								

<sup>1</sup>Outfalls 042, 043, & 047-050 discharge to Water Branch. The 7Q10 for the receiving stream is 0 cfs. The mean annual flow is 5.86 cfs.

This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 042 is reported to have the highest discharge flow rate of 0.073 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL007771's Outfall 017-1 on March 27, 2017.

Facility Name: Birmingham Coacl & Coke Company, Inc. - Old Union Mine

NPDES No.: AL0077771

Outfall 051<sup>12345</sup>

Freshwater F&W classification.															Freshwater Acute (µg/l) Q <sub>s</sub> = 1Q10					Freshwater Chronic (µg/l) Q <sub>s</sub> = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q <sub>s</sub> = Annual Average Non-Carcinogen Q <sub>s</sub> = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background Instream (Cs) Daily Max	Max Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>disch</sub> )	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Background Instream (Cs) Monthly Ave	Avg Daily Discharge as reported by Applicant <sup>4</sup> (C <sub>avg</sub> ) <sup>4</sup>	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?	Water Quality Criteria (C <sub>i</sub> )	Draft Permit Limit (C <sub>draft</sub> )	20% of Draft Permit Limit	RP?									
1	Antimony			0	0	-	-	-		0	0	-	-	-		3.73E+02	9.32E+03	1.86E+03	No									
2	Arsenic		YES	0	0	340.000	6447.693	1289.539	No	0	0	150.000	3742.761	748.552	No	3.03E-01	1.27E-02	2.54E-03	No									
3	Beryllium			0	0	-	-	-		0	0	-	-	-		-	-	-	-									
4	Cadmium			0	0	2.014	38.188	7.638	No	0	0	0.246	6.138	1.228	No	-	-	-	-									
5	Chromium/ Chromium III			0	0	569.763	10804.883	2160.977	No	0	0	74.115	1849.286	369.857	No	-	-	-	-									
6	Chromium/ Chromium VI			0	0	16.000	303.421	60.684	No	0	0	11.000	274.469	54.894	No	-	-	-	-									
7	Copper			2.34	0	13.439	212.821	42.564	No	2.34	0	8.956	167.414	33.483	No	1.30E+03	3.24E+04	6.48E+03	No									
8	Lead			0	0	64.581	1224.709	244.942	No	0	0	2.517	62.795	12.559	No	-	-	-	-									
9	Mercury			0	0	2.400	45.513	9.103	No	0	0	0.012	0.299	0.060	No	4.24E-02	1.06E+00	2.12E-01	No									
10	Nickel			0	0	488.238	8879.531	1775.906	No	0	0	102.983	2569.611	513.922	No	1.97E+03	4.91E+04	9.81E+03	No									
11	Selenium			0	0	20.000	379.276	75.855	No	0	0	5.000	124.759	24.952	No	2.43E+03	6.06E+04	1.21E+04	No									
12	Silver			0	0	3.217	61.002	12.200	No	0	0	-	-	-		-	-	-	-									
13	Thallium			0	0	-	-	-		0	0	-	-	-		-	-	-	-									
14	Zinc			0	0	117.180	2222.187	444.437	No	0	0	118.139	2947.773	589.555	No	2.74E-01	6.83E+00	1.37E+00	No									
15	Cyanide			0	20	22.000	417.204	83.441	No	0	20	5.200	129.749	25.950	No	9.33E+03	2.33E+05	4.66E+04	No									
16	Total Phenolic Compounds			0	40	-	-	-		0	40	-	-	-		-	-	-	-									
17	Hardness (AS CaCO3)			0	0	-	-	-		0	0	-	-	-		-	-	-	-									

<sup>1</sup>Outfall 051 discharges to Browns Creek. The 7Q10 for the receiving stream is 2.52 cfs. The mean annual flow is 41.87 cfs.

This is the receiving stream flow value used in the calculations.

<sup>2</sup>Outfall 051 is reported to have a discharge flow rate of 0.068 MGD. This is the discharge flow rate used in the calculations.

<sup>3</sup>A hardness of 100 mg/L was used in the calculations based on expected stream hardness in this portion of the state.

<sup>4</sup>Discharge data for all parameters are the results of samples obtained from AL0077771's Outfall 017-1 on March 27, 2017.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANGEMENT (ADEM)  
OUTFALL CERTIFICATION SUMMARY**

PERMITTEE NAME: Birmingham Coal & Coke Company, Inc.  
 FACILITY NAME: Old Union Mine  
 NPDES PERMIT NO: AL0077771  
 COUNTY: Winston County

Outfall Number	Is Outfall Certified?	Date of Certification	Outfall Latitude and Longitude	Post-Mining Limit Approval Date	Date of ADEM Monitoring Release
001-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
002-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
003-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
004-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
005-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
006-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
007-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
008-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
009-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
010-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
011-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
012-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
013-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
014-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
015-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
016-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
017-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
018-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
019-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
020-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
021-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
022-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
023-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
024-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
025-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
026-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
027-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
028-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
029-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
030-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
031-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
032-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
033-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				
034-1	<input type="checkbox"/> YES <input type="checkbox"/> NO				





**YELLOWHAMMER ENERGY SOLUTIONS, LLC.**

912 EDENTON STREET  
BIRMINGHAM, AL 35242  
Email: rich@yellowhammerenergy.com  
Cell: 205-275-9258

December 8, 2016

**Alabama Department of Environmental Management**

Attn: Michael T Bergh  
Environmental Engineering Specialist  
Water Division; Stormwater Management Branch  
1400 Coliseum Boulevard  
Montgomery, AL 36109



RE: **Birmingham Coal & Coke Co., Inc.**  
Old Union Mine, AL0077771

Dear Michael T Bergh:

Please find attached a completed Reissuance ADEM NPDES permit application, 1" = 2,000' scaled maps and a \$6,835.00 reissuance and toxicity fees.

If you should have any questions or need additional information, please contact our office.

Sincerely,

J. Rich Weaver  
P.E.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)  
NPDES INDIVIDUAL PERMIT APPLICATION**

**SURFACE & UNDERGROUND MINERAL & ORE OR MINERAL PRODUCT MINING, QUARRYING, EXCAVATION, BORROWING, HYDRAULIC MINING, STORAGE, PROCESSING, PREPARATION, RECOVERY, HANDLING, LOADING, STORING, OR DISPOSING ACTIVITIES AND ASSOCIATED AREAS INCLUDING PRE-MINING SITE DEVELOPMENT, CONSTRUCTION, EXCAVATION, CLEARING, DISTURBANCE, RECLAMATION, AND ASSOCIATED AREAS**

INSTRUCTIONS: COMPLETE ALL QUESTIONS. RESPOND WITH "N/A" AS APPROPRIATE. INCOMPLETE OR INCORRECT ANSWERS OR MISSING SIGNATURES WILL DELAY PROCESSING. ATTACH ADDITIONAL COMMENTS OR INFORMATION AS NEEDED. IF SPACE IS INSUFFICIENT, CONTINUE ON AN ATTACHED SHEET(S) AS NECESSARY. COMMENCEMENT OF ACTIVITIES APPLIED FOR AS DETAILED IN THIS APPLICATION ARE NOT AUTHORIZED UNTIL PERMIT COVERAGE HAS BEEN ISSUED BY THE DEPARTMENT.

PLEASE TYPE OR PRINT IN INK ONLY.

**PURPOSE OF THIS APPLICATION**

- |  |  |
|--|--|
| <input type="checkbox"/> Initial Permit Application for New Facility | <input type="checkbox"/> Initial Permit Application for Existing Facility (e.g. facility previously permitted less than 5 acres) |
| <input type="checkbox"/> Modification of Existing Permit             | <input checked="" type="checkbox"/> Reissuance of Existing Permit  |
| <input type="checkbox"/> Reissuance & Transfer of Existing Permit    | <input type="checkbox"/> Reissuance & Modification Existing Permit   |
|  | <input type="checkbox"/> Revocation and Reissuance of Existing Permit  |
|  | <input type="checkbox"/> Other _____   |

**I. GENERAL INFORMATION**

NPDES Permit Number (Not applicable if initial permit application): <b>AL 0077771</b>	County(s) in which Facility is Located: <b>Winston</b>
--	---

**RECEIVED**

**FEB 10 2017**

Company/Permittee Name: <b>Birmingham Coal &amp; Coke Company, Inc.</b>	Facility Name (e.g., Mine Name, Pit Name, etc.): <b>Old Union Mine</b>
Mailing Address of Company/Permittee: <b>912 Edenton Street</b>	Physical Address of Facility (as near as possible to entrance): <b>2876 County Road 70</b>
City: <b>Birmingham</b> , State: <b>Alabama</b> , Zip: <b>35242</b>	City: <b>Nauvoo</b> , State: <b>Alabama</b> , Zip: <b>35578</b>
Permittee Phone Number: <b>205-327-1075</b>	Permittee Fax Number: <b>205-327-1076</b>
Latitude and Longitude of entrance: <b>34Deg 01' 00"; 87Deg 27' 00"</b>	

**STORM WATER  
MANAGEMENT BRANCH**

Responsible Official (as described on page 13 of this application): <b>Robert A. Lewis</b>	Responsible Official Title: <b>President</b>
Mailing Address of Responsible Official: <b>912 Edenton Street</b>	Physical Address of Responsible Official: <b>912 Edenton Street</b>
City: <b>Birmingham</b> , State: <b>Alabama</b> , Zip: <b>35242</b>	City: <b>Birmingham</b> , State: <b>Alabama</b> , Zip: <b>35242</b>
Phone Number of Responsible Official: <b>205-327-1075</b>	Fax Number of Responsible Official: <b>205-327-1076</b>
Email Address of Responsible Official: <b>None</b>	

Facility Contact: <b>Jason Rudakas</b>	Facility Contact Title: <b>Superintendent of Mines</b>
Physical Address of Facility Contact: <b>912 Edenton Street</b>	Phone Number of Facility Contact: <b>205-327-1075</b>
City: <b>Birmingham</b> , State: <b>Alabama</b> , Zip: <b>35242</b>	Fax Number of Facility Contact: <b>205-327-1076</b>
Email Address of Facility Contact: <b>jason@yellowhammerenergy.com</b>	

**II. MEMBER INFORMATION**

A. Identify the name, title/position, and unless waived in writing by the Department, the residence address of every officer, general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility:

Name:	Title/Position:	Physical Address of Residence (P.O. Box is Not Acceptable)
<u>Robert A. Lewis</u>	<u>President</u>	<u>912 Edenton Street, Birmingham, Alabama 35242</u>
<u>Tom Lewis</u>	<u>V.P, Sec/Treas</u>	<u>912 Edenton Street, Birmingham, Alabama 35242</u>
<u>Greg Jones</u>	<u>Vice President</u>	<u>912 Edenton Street, Birmingham, Alabama 35242</u>

B. Other than the "Company/Permittee" listed in Part I., identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified in Part II.A. is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed:

Name of Corporation, Partnership, Association, or Single Proprietorship:	Name of Individual from Part II.A.:	Title/Position in Corporation, Partnership, Association, or Single Proprietorship:
<u>There are none</u>		

**III. LEGAL STRUCTURE OF APPLICANT**

A. Indicate the legal structure of the "Company/Permittee" listed in Part I:

- Corporation  
  Association  
  Individual  
  Single Proprietorship  
  Partnership  
  LLP  
  LLC  
 Government Agency: \_\_\_\_\_  Other: \_\_\_\_\_

B. If not an individual or single proprietorship, is the "Company/Permittee" listed in Part I. properly registered and in good standing with the Alabama Secretary of State's Office? (If the answer is "No," attach a letter of explanation.)  Yes  No

C. Parent Corporation and Subsidiary Corporations of Applicant, if any: There are none

D. Land Owner(s): Lewis, Bass, State of Alabama, Harris, Gumm, Monasco, Univ. of Alabama, Oliver, Watts, Southern Tir

E. Mining Sub-contractor(s)/Operator(s), if known: N/A

**IV. COMPLIANCE HISTORY**

A. Has the applicant ever had any of the following:

- |  | Yes                      | No                                  |
|--|--------------------------|-------------------------------------|
| (1) An Alabama NPDES, SID, or UIC permit suspended or terminated?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (2) An Alabama license to mine suspended or revoked?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (3) An Alabama or federal mining permit suspended or terminated?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (4) A reclamation bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (5) A bond or similar security deposited in lieu of a bond, or portion thereof, the purpose of which was to secure compliance with any requirement of the Alabama Water Improvement Commission or Alabama Department of Environmental Management, forfeited? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

(If the response to any item of Part IV.A. is "Yes," attach a letter of explanation.)

B. Identify every Warning Letter, Notice of Violation (NOV), Administrative Action, or litigation issued to the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC member and filed by ADEM or EPA during the three year (36 months) period preceding the date on which this form is signed. Indicate the date of issuance, briefly describe alleged violations, list actions (if any) to abate alleged violations, and indicate date of final resolution:

ENOV/17983-Bear Creek Mine-AL0074373; ENOV/28022-Gooden Creek Mine-AL0077542; ENOV/29288-Old Union Mine-AL0077771; ENOV/39938-Old Union #2 Mine-AL0080098; ENOV/1793-Grace Chapel Mine-AL0063525;  
ENOV/8750-Ninna V Mine-AL0060682; ENOV/16395-Crossroads Mine-AL0073661

**V. OTHER PERMITS/AUTHORIZATIONS**

A. List any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Surface Mining Commission (ASMC), Alabama Department of Industrial Relations (ADIR), or other agency, to the applicant, parent corporation, subsidiary, or LLC member for this facility whether presently effective, expired, suspended, revoked, or terminated:

ASMC P-3888

B. List any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, or ADIR, to the applicant, parent corporation, subsidiary, or LLC member for other facilities whether presently effective, expired, suspended, revoked, or terminated:

**VI. PROPOSED SCHEDULE**

Anticipated Activity Commencement Date: 2006 Anticipated Activity Completion Date: 2020

**VII. ACTIVITY DESCRIPTION & INFORMATION**

A. Proposed Total Area of the Permitted Site: 2290 acres Proposed Total Disturbed Area of the Permitted Site: 2290 acres

B. Township(s), Range(s), Section(s): T11S, R9W, Sec 36; T11S, R8W, Sec 31, T12S, R9W, Secs 1, 2, 10, 11, 12, 13, 14, 23

C. Detailed Directions to Site: From AL Hwy 5 and Winston Co Hwy 21 go west 1 mile, turn right onto Winston Co Hwy 29 and go 1.7 miles turn left onto Hwy 70 and go 2.3 miles to mine entrance

D. Is/ will this facility:

- |   | Yes                                 | No                                  |
|---|-------------------------------------|-------------------------------------|
| (1) an existing facility which currently results in discharges to State waters?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (2) a proposed facility which will result in a discharge to State waters?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (3) be located within any 100-year flood plain?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (4) discharge to Municipal Separate Storm Sewer?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (5) discharge to waters of or be located in the Coastal Zone?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (6) need/have ADEM UIC permit coverage?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (7) be located on Indian/ historically significant lands?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (8) need/have ADEM SID permit coverage?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (9) need/have ASMC permit coverage?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (10) need/have ADIR permit coverage?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (11) generate, treat, store, or dispose of hazardous or toxic waste ? (If "Yes," attach a detailed explanation.)        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (12) be located in or discharge to a Public Water Supply (PWS) watershed or be located within 1/2 mile of any PWS well? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**VIII. MATERIAL TO BE REMOVED, PROCESSED, OR TRANSLOADED**

List relative percentages of the mineral(s) or mineral product(s) that are proposed to be and/or are currently mined, quarried, recovered, prepared, processed, handled, transloaded, or disposed at the facility. **If more than one mineral is to be mined, list the relative percentages of each mineral by tonnage for the life of the mine.**

___ Dirt &/or Chert	___ Sand &/or Gravel	___ Chalk	___ Talc	___ Crushed rock (other)
___ Bentonite	___ Industrial Sand	___ Marble	___ Shale &/or Common Clay	___ Sandstone
100% ___ Coal	___ Kaolin	___ Coal fines/refuse recovery	___ Coal product, coke	___ Slag, Red Rock
___ Fire clay	___ Iron ore	___ Dimension stone	___ Phosphate rock	___ Granite
___ Bauxitic Clay	___ Bauxite Ore	___ Limestone, crushed limestone and dolomite		
___ Gold, other trace minerals: _____		___ Other: _____		
___ Other: _____		___ Other: _____		
___ Other: _____		___ Other: _____		

**IX. PROPOSED ACTIVITY TO BE CONDUCTED**

A. Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (check all that apply):

<input checked="" type="checkbox"/> Surface mining	<input type="checkbox"/> Underground mining	<input type="checkbox"/> Quarrying	<input type="checkbox"/> Auger mining	<input type="checkbox"/> Hydraulic mining
<input type="checkbox"/> Within-bank mining	<input type="checkbox"/> Solution mining	<input checked="" type="checkbox"/> Mineral storing	<input type="checkbox"/> Lime production	<input type="checkbox"/> Cement production
<input type="checkbox"/> Synthetic fuel production	<input type="checkbox"/> Alternative fuels operation	<input checked="" type="checkbox"/> Mineral dry processing (crushing & screening)	<input type="checkbox"/> Mineral wet preparation	
<input type="checkbox"/> Other beneficiation & manufacturing operations		<input checked="" type="checkbox"/> Mineral loading	<input type="checkbox"/> Chemical processing or leaching	
<input type="checkbox"/> Construction related temporary borrow pits/areas		<input checked="" type="checkbox"/> Mineral transportation ___rail ___barge <input checked="" type="checkbox"/> truck		
<input type="checkbox"/> Preparation plant waste recovery		<input type="checkbox"/> Hydraulic mining, dredging, instream or between stream-bank mining		
<input checked="" type="checkbox"/> Grading, clearing, grubbing, etc.	<input type="checkbox"/> Pre-construction ponded water removal		<input checked="" type="checkbox"/> Excavation	
<input checked="" type="checkbox"/> Pre-mining logging or land clearing	<input type="checkbox"/> Waterbody relocation or other alteration		<input type="checkbox"/> Creek/stream crossings	
<input checked="" type="checkbox"/> Onsite construction debris or equipment storage/disposal	<input checked="" type="checkbox"/> Onsite mining debris or equipment storage/disposal			
<input checked="" type="checkbox"/> Reclamation of disturbed areas	<input type="checkbox"/> Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)			
<input type="checkbox"/> Adjacent/associated asphalt/concrete plant(s)	<input type="checkbox"/> Low volume sewage treatment package plant			
<input type="checkbox"/> Other: _____				

B. Primary SIC Code: 1221 Description: Surface Mining of Bituminous Coal  
 Secondary SIC Code(s): 1629 Description: Grading for reclamation

C. Narrative Description of the Activity: Coal mining reclamation and Surface Coal Mining

**X. FUEL – CHEMICAL HANDLING, STORAGE & SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN**

A. Will fuels, chemicals, compounds, or liquid waste be used or stored onsite?  Yes  No

B. If "Yes," identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume	Contents	Volume	Contents	Volume	Contents
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____

C. If "Yes," a detailed SPCC Plan with acceptable format and content, including diagrams, must be attached to application in accordance with ADEM Admin. Code R. 335-6-6-.12(r). Unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis, Material Safety Data Sheets (MSDS) for chemicals/compounds used or proposed to be used at the facility must be included in the SPCC Plan submittal.

**XI. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN**

A. For non-coal mining facilities, a PAP Plan in accordance with ADEM Admin. Code r. 335-6-9-.03 has been completed and is attached as part of this application.  Yes  No

B. For coal mining facilities, a detailed PAP Plan has been submitted to ASMC according to submittal procedures for ASMC regulated facilities.  Yes  No

(1) If "Yes" to Part XI.B., provide the date that the PAP Plan was submitted to ASMC: 2005

(2) If "No" to Part XI.B., provide the anticipated date that the PAP Plan will be submitted to ASMC: \_\_\_\_\_

**XII. ASMC REGULATED ENTITIES**

A. Is this coal mining operation regulated by ASMC?  Yes  No

B. If "Yes", provide copies as part of this application of any pre-mining hydrologic sampling reports and Hydrologic Monitoring Reports which have been submitted to ASMC within the 36 months prior to submittal of this application.









XVIII. PROPOSED NEW OR INCREASED DISCHARGES

A. Pursuant to ADEM Admin. Code Chapter 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located.

- [x] Yes. New/increased discharges of pollutant(s) or discharge locations to Tier 2 waters are proposed.
[ ] No. New/increased discharges of pollutants(s) or discharge locations to Tier 2 waters are not proposed.

B. If "Yes," complete Items 1 through 6 of this Part (XVII.B.), ADEM Form 311-Alternative Analysis, and either ADEM Form 312 or ADEM Form 313-Calculation of Total Annualized Project Costs (Public-Section or Private-Sector, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever, is applicable, should be completed for each technically feasible alternative evaluated on ADEM Form 311. ADEM Forms can be found on the Department's website at www.adem.alabama.gov/DeptForms. Attach additional sheets/documentation and supporting information as needed.

(1) What environmental or public health problem will the discharge be correcting?
None all mining has been completed and all reclamation has been completed.

(2) How much will the discharger be increasing employment (at its existing facility or as a result of locating a new facility)?
None

(3) How much reduction in employment will the discharger be avoiding?
None

(4) How much additional state or local taxes will the discharger be paying?
These estimates are based on other facilities owned and operated by Birmingham Coal & Coke Co., Inc. that are similar in size
The amount of state and local taxes paid is dependent on production, the present economic circumstances, present coal contracts and the present price of the coal. The following is an estimate of the annual state and local taxes that will be paid by the discharge
1) Corporate Income Tax \$25,000, 2) State of Alabama Income Tax 4% a) Taxes withheld and paid on employees \$20,000,
3) Excise Tax \$9,000, 4) Sales/Use Tax on Equipment and Supplies \$25,000 - \$30,000, 5) Unemployment Tax 7,000. 6) Permit Fe

(5) What public service to the community will the discharger be providing?
This facility will produce a high quality steam grade coal. The coal will be sold to Alabama Power Company for the generation of e
The Power Company must meet and exceed present electrical demands for the community to grow. With the issuance
of this permit it will not only maintain its work force, but will also create support industries. Support industries such as transportatic
fuel/oil suppliers, industrial material suppliers, and power production systems will all benefit from the reissuance of this permit.

(6) What economic or social benefit will the discharger be providing to the community?
This facility will produce a high quality low sulfur coal that will be sold to Alabama Power Company, Blue Circle Cement, and any s
The high quality low sulfur coal, which will be mined at this facility, is in short supply in the state of Alabama. It is anticipated
that this facility will produce approximately 60,000 - 80,000 tons of coal per year. This facility will be paying taxes to the local
community and provide additional employment. Also, it will provide other industries the necessary product to produce materials
that are necessary for maintaining the communities infrastructure.

**XIX. POLLUTION ABATEMENT PLAN (PAP) SUMMARY**

**Outfall(s):** \_\_\_\_\_

Y	N	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Runoff from all areas of disturbance is controlled
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trees, boulders, and other obstructions removed from pond during initial construction
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Width of top of dam greater than 12'
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Side slopes of dam no steeper than 3:1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutoff trench at least 8' wide
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Side slopes of cutoff trench no less than 1:1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutoff trench located along the centerline of the dam
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutoff trench extends at least 2' into bedrock or impervious soil
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutoff trench filled with impervious material
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Embankments and cutoff trench 95% compaction standard proctor ASTM
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Embankment free of roots, tree debris, stones >6" diameter, etc.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Embankment constructed in lifts no greater than 12"
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spillpipe sized to carry peak flow from a one year storm event
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spillpipe will not chemically react with effluent
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Subsurface withdrawal
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anti-seep collars extend radially at least 2' from each joint in spillpipe
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Splashpad at the end of the spillpipe
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency overflow at least 20' long
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Side slopes of emergency spillway no steeper than 2:1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Emergency spillway lined with riprap or concrete
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum of 1.5' of freeboard between normal overflow and emergency overflow
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All emergency overflows are sized to handle entire drainage area for ponds in series
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dam stabilized with permanent vegetation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sustained grade of haul road <10%
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum grade of haul road <15% for no more than 300'
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outer slopes of haul road no steeper than 2:1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Outer slopes of haul road vegetated or otherwise stabilized
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Detail drawings supplied for all stream crossings
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans

The applicant has completed the surface water discharge alternatives analysis and has supporting documentation, including annualized costs for each technically feasible alternative available for review upon request

**IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):**

Sediment Basins provide sediment storage volume of 0.10 acre-feet per acre disturbed in addition to sufficient calculated and designed detention volume to meet 0.50 ml/L settleable solids.
Sediment Basins area cleaned out when the accumulated sediment reaches the specified sediment storage volume set forth in the detailed design plans.
Upstream and downstream slopes of the dam are no less than 2.5H to 1V and are designed to provide stability with a minimum static safety factor of 1.3. This design is determined using tested strength characteristics of the foundation and Embankment material.
The emergency spillway is design based on the anticipated flows, flow velocities and whether the spillway is expected to carry continuous, sustained flows. In the case of a primary spillway pipe, the secondary or emergency spillway may be set at an elevation above the maximum anticipated peak flow elevation. In such a case, a vegetated emergency spillway is adequate. There are no stream crossings at this facility.

**XX. POLLUTION ABATEMENT PLAN (PAP) REVIEW CHECKLIST**

Y	N	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PE Seal with License #  
 Name and Address of Operator  
 Legal Description of Facility

**General Information:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of Company  
 Number of Employees  
 Products to be Mined  
 Hours of Operation  
 Water Supply and Disposition

**Topographic Map:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mine Location  
 Location of Prep Plant  
 Location of Treatment Basins  
 Location of Discharge Points  
 Location of Adjacent Streams

**1" - 500' or Equivalent Facility Map:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Drainage Patterns  
 Mining Details  
 All Roads, Structures Detailed  
 All Treatment Structures Detailed

**Detailed Design Diagrams:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Views  
 Cross-section Views  
 Method of Diverting Runoff to Treatment Basins

**Narrative of Operations:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Raw Materials Defined  
 Processes Defined  
 Products Defined

**Schematic Diagram:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Points of Waste Origin  
 Collection System  
 Disposal System

**Post Treatment Quantity and Quality of Effluent:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Flow  
 Suspended Solids  
 Iron Concentration  
 pH

**Description of Waste Treatment Facility:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Pre-Treatment Measures  
 Recovery System  
 Expected Life of Treatment Basin  
 Schedule of Cleaning and/or abandonment

**Other:**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Precipitation/Volume Calculations/Diagram Attached  
 BMP Plan for Haul Roads  
 Measures for Minimizing Impacts to Adjacent Stream i.e., Buffer Strips, Berms, etc.  
 Methods for Minimizing Nonpoint Source Discharges  
 Facility Closure Plans  
 PE Rationale(s) For Alternate Standards, Designs or Plans

**IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):**

No Preparation plant is proposed at the site
No Alternate Standards designs, or plants are proposed

**Contact the Department prior to submittal with any questions or to request acceptable alternate content/format. Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.**

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the applicant is eligible for a waiver and the Department grants a waiver.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under and Individual NPDES Permit prior to commencement of any land disturbance. Such coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

- (1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, *etc.*;
- (2) The Alabama Department of Industrial Relations (ADIR) if conducting non-coal mining operations;
- (3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
- (4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species; and
- (5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee (including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable), prior to development of a draft NPDES permit. Send the completed form, supporting documentation, and the appropriate fees to:

Water Division  
Alabama Department of Environmental Management  
Post Office Box 301463  
Montgomery, Alabama 36130-1463  
Phone: (334) 271-7823  
Fax: (334) 279-3051  
h2omail@adem.state.al.us  
www.adem.alabama.gov

XXII. PROFESSIONAL ENGINEER (PE) CERTIFICATION

A detailed, comprehensive Pollution Abatement/Prevention Plan (PAP) must be prepared, signed, and certified by a professional engineer (PE), registered in the State of Alabama as follows:

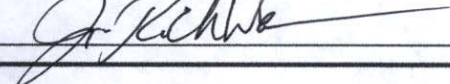
"I certify on behalf of the applicant, that I have completed an evaluation of discharge alternatives (Item XVIII) for any proposed new or increased discharges of pollutant(s) to Tier 2 waters and reached the conclusions indicated. I certify under penalty of law that technical information and data contained in this application, and a comprehensive PAP Plan including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP plan is properly implemented and maintained by the Permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality."

Address 228 Ollie Miller Road, Jasper AL 35504

PE Registration # AL33285

Name and Title (type or print) J. Rich Weaver, P.E.

Phone Number 205-275-9258

Signature 

Date Signed 12/8/2016

XXIII. RESPONSIBLE OFFICIAL SIGNATURE\*

This application must be signed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility.

"I certify under penalty of law that this document, including technical information and data, the PAP plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision 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 or imprisonment for knowing violations.


A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the Permittee to appropriate enforcement action.

I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form.

I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified."

Name (type or print) Robert A Lewis

Official Title President

Signature 

Date Signed 12/8/2016

\*335-6-6-.09 Signatories to Permit Applications and Reports.

- (1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
  - (a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
  - (b) In the case of a partnership, by a general partner;
  - (c) In the case of a sole proprietorship, by the proprietor; or
  - (d) In the case of a municipal, state, federal, or other public entity by either a principal executive officer, or ranking elected official.


# Attachment 1 to Supplementary Form ADEM Form 311

## *Alternatives Analysis*

*Applicant/Project:* Birmingham Coal & Coke Co., Inc Old Union Mine

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate "... that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		X	Water quantity too great
2 Pretreatment/Discharge to POTW		X	Water quantity too great
3 Relocation of Discharge		X	Limited by Topography
4 Reuse/Recycle		X	Water quantity too great
5 Process/Treatment Alternatives		X	Limited by Topography
6 On-site/Sub-surface Disposal		X	Limited by Topography
<i>(other project-specific alternatives considered by the applicant; attach additional sheets if necessary)</i>			
7			
8			
9			

<p>Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.</p>	<p>Signature:  (Professional Engineer)</p> <p>Date: <u>12/7/2016</u></p>
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*(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)*

**Calculation of Total Annualized Project Costs  
for Public-Sector Projects**

**A. Capital Costs**

Capital Cost of Project	\$ 350,000	
Other One-Time Costs of Project (Please List, if any)		
<hr/>	\$	
<hr/>	\$	
<hr/>	\$	
<b>Total Capital Costs (Sum column)</b>	<b>\$ 350,000</b>	<b>(1)</b>
Portion of Capital Costs to be Paid for with Grant Monies	\$	(2)
Capital Costs to be Financed [Calculate: (1) – (2) ]	\$ 350,000	(3)
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)		
Interest Rate for Financing (expressed as decimal)	0.10	(i)
Time Period of Financing (in years)	10	(n)
Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$	.384	(4)
<b>Annualized Capital Cost [Calculate: (3) x (4) ]</b>	<b>134,400</b>	<b>(5)</b>

**B. Operating and Maintenance Costs**

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

<hr/>	\$	
<hr/>	\$	
<hr/>	\$	
<hr/>	\$	
<b>Total Annual O &amp; M Costs (Sum column)</b>	<b>\$ 10,500</b>	<b>(6)</b>

**C. Total Annual Cost of Pollution Control Project**

Total Annual Cost of Pollution Control Project [ (5) + (6) ]

\$ 144,900	(7)
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**ATTACHMENT XV. RECEIVING WATERS**

List the requested permit action for each outfall (issue, reissue, add, delete, move, etc.), outfall designation including denoting "E" for existing and "P" for proposed outfalls, name of receiving water(s), whether or not the stream is included in a TMDL, Latitude and longitude (to seconds) of location(s) of each discharge | distance of receiving water from outfall in feet, number of disturbed the number of drainage acres which will drain through each treatment system, outfall, or l and if the outfall discharges to an ADEM listed CWA Section 303(d) waterbody segment at the time of application submittal.

Action	Outfall E/P	Receiving Water	Latitude	Longitude	Distance to Rec. Water	Disturbed Acres	Drainage Acres	ADEM WUC	303(d) Segment (Y/N)	TMD Segm (Y/N)
Reissue	001P	Little Blackwater Crk	34°00' 31"	87°27'26"	550'	31	32	F & W	N	N
Reissue	002P	Little Blackwater Crk	34°00' 24"	87°27'23"	100'	14	14	F & W	N	N
Reissue	003P	Little Blackwater Crk	34°00' 20"	87°27'22"	100'	34	34	F & W	N	N
Reissue	004P	Little Blackwater Crk	34° 00' 04"	87°27'29"	400'	37	37	F & W	N	N
Reissue	005P	Little Blackwater Crk	33°59' 52"	87°27'19"	330'	28	28	F & W	N	N
Reissue	006P	Little Blackwater Crk	33°59' 48"	87°27'13"	300'	23	23	F & W	N	N
Reissue	007P	Indian Creek	33°59' 50"	87°26'59"	220'	36	36	F & W	N	N
Reissue	008P	Indian Creek	34° 00' 07"	87°26'53"	150'	10	10	F & W	N	N
Reissue	009P	U.T.to Indian Creek	34° 00' 19"	87°25'57"	Directly	40	40	F & W	N	N
Reissue	010E	U.T.to Indian Creek	34° 00' 13"	87°26'52"	100'	240	243	F & W	N	N
Reissue	011E	Indian Creek	34°00' 21"	87°26'42"	350'	IO	10	F & W	N	N
Reissue	012E	Indian Creek	34°00'32"	87°26'41"	500'	33	33	F & W	N	N
Reissue	013E	U.T.to Indian Creek	34° 00' 37"	87°26'38"	250'	27	27	F & W	N	N
Reissue	014E	U.T.to Indian Creek	34°00' 42"	87°26'33"	Directly	70	72	F & W	N	N
Reissue	015E	India n Creek	34° 00' 52"	87°26'25"	250'	LI	II	F & W	N	N
Reissue	016E	U.T.to Indian Creek	34°00'60"	87°26'23"	250'	11	II	F & W	N	N
Reissue	017E	U.T.to Indian Creek	34°01' 03"	87°26' 19"	Directly	229	234	F & W	N	N
Reissue	018P	U T.to India n Creek	34°01' 06"	87°26'22"	Directly	149	152	F & W	N	N
Reissue	019P	U T.to Indian Creek	34°01'09"	87°26'21"	Directly	79	82	F & W	N	N
Reissue	020P	U.T. to Indian Creek	34° 01' 18"	87°26'31"	70'	28	28	F & W	N	N
Reissue	021E	Indian Creek	34° 01' 19"	87°26'10"	250'	46	46	F & W	N	N
Reissue	022E	Indian Creek	34°01' 32"	87°26'01"	100'	24	24	F & W	N	N
Reissue	023E	U.T.to Indian Creek	34°01' 44"	87°25'58"	Directly	232	238	F & W	N	N
Reissue	024P	U.T.to Indian Creek	34°01' 58"	87°25'51"	Directly	46	47	F & W	N	N
Reissue	025P	U.T.to Indian Creek	34°01' 60"	87°25'36"	Directly	52	54	F & W	N	N
Reissue	026P	India n Creek	34°02' 03"	87°25'26"	100'	10	10	F & W	N	N
Reissue	027P	India n Creek	34°02' 10"	87°25'20"	50'	21	23	F & W	N	N
Reissue	028P	U.T.to Black Creek	34°02' 45"	87°25'12"	200'	63	75	F & W	N	N
Reissue	029P	U.T.to Black Creek	34°02' 44"	87°25'23"	Directly	129	134	F & W	N	N
Reissue	030P	U.T.lo Water Branch	34°02' 50"	87626'02"	Directly	60	62	F & W	N	N
Reissue	031P	U.T. to Water Branch	34°02' 40"	87626'03"	220'	37	40	F & W	N	N
Reissue	032P	U.T. to Water Branch	34°02' 38"	87°26'05"	200'	20	22	F & W	N	N
Reissue	033P	U.T. to Water Branch	34°02' 24"	87°26'07"	850'	45	48	F & W	N	N
Reissue	034P	U.T.to Water Branch	34°02' 23"	87°26'21"	100'	44	47	F & W	N	N
Reissue	035P	U.T.to Water Branch	34°02' 21"	87626'26"	270'	9	9	F & W	N	N
Reissue	036P	U.T.to Water Branch	34°02' 22"	87°26'32"	270'	16	16	F & W	N	N
Reissue	037P	U.T.to Water Branch	34°02' 16"	87°26'46"	120'	20	20	F & W	N	N
Reissue	038P	U.T.to Water Branch	34° 02' 03"	87°26'50"	Directly	99	102	F & W	N	N
Reissue	039P	Indian Creek	34°01' 51"	87°25'42"	140'	34	34	F & W	N	N
Reissue	040P	U.T.to Water Branch	34°01' 52"	87°27'05"	Directly	268	273	F & W	N	N
Reissue	041E	U.T.to Water Branch	34° 01' 52"	87°26'56"	Di rectly	114	117	F & W	N	N
Reissue	042E	Water Branch	34°01' 37"	87°27' 11"	240'	48	48	F & W	N	N
Reissue	043E	Water Branch	34°01' 27"	87°27'18"	270'	24	24	F & W	N	N
Reissue	044E	U.T.to Water Branch	34° 01' 14"	87°27'26"	Directly	48	53	F & W	N	N
Reissue	045P	U.T. to Water Branch	34°01' 17"	87°27'23"	200'	152	153	F & W	N	N
Reissue	046P	U.T.to Water Branch	34°01' 14"	87°27'17"	220'	22	25	F & W	N	N

- If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation: (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be reported as available); (3) Requested interim limitations, if applicable; (4) Date of final compliance with the TMDL limitations; and (5) Any other additional information available to support the requested compliance schedule.



**ATTACHMENT XVI. DISCHARGE CHARACTERIZATION**

**A. Modified EPA Form 2C Submittal**

Yes, pursuant to 40CFR 122.21, the applicant requests a waiver for completion of the modified EPA form 2C and certifies that the operating facility will discharge treated stormwater only, unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis that chemical/compound additives are not used, and that there are no process, manufacturing, or other industrial operations or wastewaters, including but not limited to lime or cement production, synfuel operations, etc., and that coal and coal products are not mined nor stored onsite.

No, the applicant does not request a waiver and a complete modified EPA form 2C is attached.

If a completed EPA form 2C and/or 2D is not attached, the applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. List expected average daily discharge flow rate in gallons/day and in cfs, frequency of discharge in hours per day and days per month, average summer and winter temperature of discharge(s) in degrees centigrade (C), average daily discharge in pounds per day of Total Iron, Total Manganese, Total Aluminum (if bauxite or bauxitic clay), and Total Suspended Solids: **Source of information is from Best Professional Estimate.**

Outfall E/P	Information Source - # Of Samples	Flow cfs	Flow gpd	Frequency hours/day	Frequency days/month	PH s.u.	BOD <sub>5</sub> lbs/day	Sumr/Wint Temp, C.	Tot Al lbs/day	Tot Fe lbs/day	Tot Mn lbs/day	TSS lbs/day
001P	BPE	0.075	48K	Precipitation	Precipitation	7.3	0.80	26/7	N/A	2.40	1.60	28
002P	BPE	0.033	21K	Precipitation	Precipitation	7.3	0.35	26/7	N/A	1.05	0.70	12
003P	BPE	0.080	52K	Precipitation	Precipitation	7.3	0.87	26/7	N/A	2.60	1.73	30
004P	BPE	0.087	56K	Precipitation	Precipitation	7.3	0.93	26/7	N/A	2.80	1.87	33
005P	BPE	0.066	43K	Precipitation	Precipitation	7.3	0.72	26/7	N/A	2.15	1.43	25
006P	BPE	0.054	35K	Precipitation	Precipitation	7.3	0.58	26/7	N/A	1.75	1.17	20
007P	BPE	0.084	54K	Precipitation	Precipitation	7.3	0.90	26/7	N/A	2.70	1.80	31
008P	BPE	0.023	15K	Precipitation	Precipitation	7.3	0.25	26/7	N/A	0.75	0.50	09
009P	BPE	0.094	61K	Precipitation	Precipitation	7.3	1.02	26/7	N/A	3.05	2.03	36
010E	4 DMRS	0.570	368K	Precipitation	Precipitation	7.3	6.13	26/7	N/A	1.83	1.22	21
011E	4 DMRS	0.023	15K	Precipitation	Precipitation	7.3	0.25	26/7	N/A	0.75	0.50	09
012E	4 DMRS	0.077	50K	Precipitation	Precipitation	7.3	0.83	26/7	N/A	2.50	1.67	19
013E	4 DMRS	0.063	41K	Precipitation	Precipitation	7.3	0.68	26/7	N/A	2.05	1.37	14
014E	4 DMRS	0.169	109K	Precipitation	Precipitation	7.3	1.82	26/7	N/A	1.54	1.36	16
015E	4 DMRS	0.026	17K	Precipitation	Precipitation	7.3	0.28	26/7	N/A	0.85	0.57	10
016E	4 DMRS	0.026	17K	Precipitation	Precipitation	7.3	0.28	26/7	N/A	0.85	0.57	10
017E	4 DMRS	0.548	354K	Precipitation	Precipitation	7.3	5.89	26/7	N/A	1.76	1.17	20
018P	BPE	0.356	230K	Precipitation	Precipitation	7.3	3.83	26/7	N/A	11.49	7.66	134
019P	BPE	0.192	124K	Precipitation	Precipitation	7.3	2.06	26/7	N/A	6.19	4.13	72
020P	BPE	0.066	43K	Precipitation	Precipitation	7.3	0.72	26/7	N/A	2.15	1.43	25
021E	4 DMRS	0.108	70K	Precipitation	Precipitation	7.3	1.17	26/7	N/A	3.50	2.33	41
022E	4 DMRS	0.056	36K	Precipitation	Precipitation	7.3	0.60	26/7	N/A	1.80	1.20	21
023E	4 DMRS	0.558	361K	Precipitation	Precipitation	7.3	6.01	26/7	N/A	1.83	1.20	21
024P	BPE	0.110	71K	Precipitation	Precipitation	7.3	1.18	26/7	N/A	3.55	2.36	41
025P	BPE	0.127	82K	Precipitation	Precipitation	7.3	1.37	26/7	N/A	4.10	2.73	48
026P	BPE	0.023	15K	Precipitation	Precipitation	7.3	0.25	26/7	N/A	0.75	0.50	09
027P	BPE	0.054	35K	Precipitation	Precipitation	7.3	0.58	26/7	N/A	1.75	1.17	20
028P	BPE	0.176	114K	Precipitation	Precipitation	7.3	1.90	26/7	N/A	5.69	3.80	66
029P	BPE	0.314	203K	Precipitation	Precipitation	7.3	3.38	26/7	N/A	10.14	6.76	118
030P	BPE	0.145	94K	Precipitation	Precipitation	7.3	1.57	26/7	N/A	4.70	3.13	55
031P	BPE	0.094	61K	Precipitation	Precipitation	7.3	1.02	26/7	N/A	3.05	2.03	36
032P	BPE	0.052	34K	Precipitation	Precipitation	7.3	0.57	26/7	N/A	1.70	1.13	20
033P	BPE	0.113	73K	Precipitation	Precipitation	7.3	1.22	26/7	N/A	3.65	2.43	43
034P	BPE	0.110	71K	Precipitation	Precipitation	7.3	1.18	26/7	N/A	3.55	2.36	41
035P	BPE	0.021	14K	Precipitation	Precipitation	7.3	0.23	26/7	N/A	0.70	0.47	08
1036P	BPE	0.038	25K	Precipitation	Precipitation	7.3	0.42	26/7	N/A	1.25	0.83	15
037P	BPE	0.047	30K	Precipitation	Precipitation	7.3	0.50	26/7	N/A	1.50	1.00	17
038P	BPE	0.239	154K	Precipitation	Precipitation	7.3	2.56	26/7	N/A	7.69	5.13	90
039P	BPE	0.080	52K	Precipitation	Precipitation	7.3	0.87	26/7	N/A	2.60	1.73	30
040P	BPE	0.640	414K	Precipitation	Precipitation	7.3	6.89	26/7	N/A	20.68	13.79	241
041E	4 DMRS	0.275	177K	Precipitation	Precipitation	7.3	2.95	26/7	N/A	2.35	1.56	20
042E	4 DMRS	0.113	73K	Precipitation	Precipitation	7.3	1.22	26/7	N/A	1.36	1.02	21
043E	4 DMRS	0.056	36K	Precipitation	Precipitation	7.3	0.60	26/7	N/A	1.80	1.20	21
044E	4 DMRS	0.124	80K	Precipitation	Precipitation	7.3	1.33	26/7	N/A	2.15	1.06	21
045P	BPE	0.359	232K	Precipitation	Precipitation	7.3	3.86	26/7	N/A	11.59	7.73	135
046P	BPE	0.059	38K	Precipitation	Precipitation	7.3	0.63	26/7	N/A	1.90	1.27	22
047E	4 DMRS	0.045	29K	Precipitation	Precipitation	7.3	0.48	26/7	N/A	1.45	0.97	17
048P	BPE	0.021	14K	Precipitation	Precipitation	7.3	0.23	26/7	N/A	0.70	0.47	08
049E	4 DMRS	0.035	23K	Precipitation	Precipitation	7.3	0.38	26/7	N/A	1.15	0.77	13
050E	4 DMRS	0.033	21K	Precipitation	Precipitation	7.3	0.35	26/7	N/A	1.05	0.70	12
051E	4 DMRS	0.105	68K	Precipitation	Precipitation	7.3	1.13	26/7	N/A	3.40	1.26	20

**ATTACHMENT XVII. DISCHARGE STRUCTURE DESCRIPTION AND POLLUTANT SOURCE**

Existing and proposed point source(s) covered by this permit application – Specify outfall number(s) as it appears on the map referred to in Item 20 [if this application is for a modification to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, e.g. pipe, spillway, channel, tunnel, conduit, well, discrete fissure, or container, and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described. Please check all responses which describe the discharge origin.

Outfall	Discharge structure Description	Description of Origin Of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep –Other Production Plant	Pumped or Controlled Discharge	Low Volume STP	Other
001P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
002P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
003P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
004P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
005P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
006P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
007P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
008P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
009P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
010E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
011E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
012E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
013E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
014E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
015E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
016E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
017E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
018P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
019P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
020P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
021E	Pipe	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
022E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
023E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
024P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
025P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
026P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
027P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
028P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
029P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
030P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
031P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
032P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
033P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
034P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
035P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
036P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
037P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
038P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
039P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
040P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
041E	Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
042E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
043E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
044E	Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
045P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
046P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
047E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
048P	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
049E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
050E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A
051E	Pipe and/or Channel	(2) & (9)	X	N/A	N/A	N/A	N/A	N/A

Origin of Pollutants – typical examples: (1) Discharge of drainage from the underground workings of an underground coal mine, (2) Discharge of drainage from a coal surface mine, (3) Discharge of drainage from a coal preparation plant and associated areas, (4) Discharge of process wastewater from a gravel-washing plant, (5) Discharge of wastewater from an existing source coal preparation plant, (6) Discharge of drainage from a sand and gravel pit, (7) Pumped discharge from a limestone quarry, (8) Controlled surface mine drainage (pumped or siphoned), (9) Discharge of drainage from mine reclamation, (10) Discharge of drainage from coal fines recovery

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number	AL0077771	DSN: 010	Winston County
Permittee:	Birmingham Coal & Coke Company, Inc.	Facility Name:	Old Union Mine
Agent Submitting Report:	Greg Jones	Lab Conducting Toxicity	
Month Toxicity tests required:	Qtr# 3 - 2016	Tests:	Bham Coal & Coke
		Type test required is	48-hour acute screening

Test Organism Ceriodaphnia dubia				Test Organism Pimephales promelas					
Date/Time Start	Date/Time End	Valid		Date/Time Start	Date/Time End	Valid			
7/12/2016	11AM	7/14/2016	11AM	Yes	7/12/2016	11AM	7/14/2016	11AM	Yes

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	12		7.5				55

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
010	7/11/2016	4	7/12/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L	ph. Range s.u.		Light in average ft -c
P.p	24.0 - 24.1	6.8 - 7.3	7.3-	7.7	75
C.d.	24.0 - 24.1	6.8 - 7.3	7.3-	7.7	75

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, VP  
Name & Title of Responsible Official

\_\_\_\_\_  
Signature

12/2/2016  
Date

Facility Name Old Union Mine NPDES# AL0077771 DSN 010 DATE 7/11/16

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSU M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END: 100% EFFLUENT 100% END 100%  
 24hr: 24hr:

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END 100% EFFLUENT 100% END 100%  
 24h 24hr:

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number	AL0077771	DSN: 014	Winston County
Permittee:	Birmingham Coal & Coke Company, Inc.	Facility Name:	Old Union Mine
Agent Submitting Report:	Greg Jones	Lab Conducting Toxicity	
Month Toxicity tests required:	Qtr# 3 - 2016	Tests:	Bham Coal & Coke
		Type test required is	48-hour acute screening

Test Organism Ceriodaphnia dubia				Test Organism Pimephales promelas			
Date/Time Start	Date/Time End	Valid		Date/Time Start	Date/Time End	Valid	
7/12/2016	11AM	7/14/2016	11AM	Yes			

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	14		7.8				52

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
014	7/11/2016	4	7/12/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

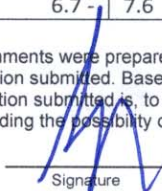
**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L		ph. Range s.u.		Light in average ft -c
P.p	24.0 - 24.1	6.7 -	7.6	7.5-	7.8	75
C.d.	24.0 - 24.1	6.7 -	7.6	7.5-	7.8	75

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, VP  
Name & Title of Responsible Official

  
Signature

12/2/2016  
Date

Facility Name Old Union Mine NPDES# AL0077771 DSN 014 DATE 7/11/16

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSUM M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARIABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END: 100% EFFLUENT 100% END 100%  
 24hr: 24hr:

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END 100% EFFLUENT 100% END 100%  
 24h 24hr:

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**



**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number AL0077771 DSN: 017 Winston County  
 Permittee: Birmingham Coal & Coke Company, Inc. Facility Name: Old Union Mine  
 Agent Submitting Report: Greg Jones Lab Conducting Toxicity  
 Month Toxicity tests required: Qtr# 3 - 2016 Tests: Bham Coal & Coke  
 Type test required is 48-hour acute screening

Test Organism Ceriodaphnia dubia				Test Organism Pimephales promelas					
Date/Time Start	Date/Time End	Valid		Date/Time Start	Date/Time End	Valid			
7/12/2016	11AM	7/14/2016	11AM	Yes	7/12/2016	11AM	7/14/2016	11AM	Yes

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	16		7.9				62

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
017	7/11/2016	4	7/12/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L		ph. Range s.u.		Light in average ft -c
P.p.	24.0 - 24.1	7.1 -	7.3	7.6 -	7.9	75
C.d.	24.0 - 24.1	7.1 -	7.3	7.6 -	7.9	75

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, VP  
Name & Title of Responsible Official

\_\_\_\_\_  
Signature

12/2/2016  
Date

Facility Name Old Union Mine NPDES# AL0077771 DSN 017 DATE 7/11/16

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSUM M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END: 100% EFFLUENT 100% END 100%  
 24hr: 24hr:

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END 100% EFFLUENT 100% END 100%  
 24h 24hr:

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number AL0077771 DSN: 021 Winston County  
 Permittee: Birmingham Coal & Coke Company, Inc. Facility Name: Old Union Mine  
 Lab Conducting Toxicity  
 Agent Submitting Report: Greg Jones Tests: Bham Coal & Coke  
 Month Toxicity tests required: Qtr# 3 - 2016 Type test required is 48-hour acute screening

Test Organism Ceriodaphnia dubia			Test Organism Pimephales promelas		
Date/Time Start	Date/Time End	Valid	Date/Time Start	Date/Time End	Valid
8/16/2016 11AM	8/18/2016 11AM	Yes	8/16/2016 11AM	8/18/2016 11AM	Yes

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	18		7.7				38

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
021	8/15/2016	4	8/16/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L		ph. Range s.u.		Light in average ft -c
P.p	24.0 - 24.1	7.3 -	7.5	7.7 -	7.8	75
C.d.	24.0 - 24.1	7.3 -	7.5	7.7 -	7.8	75

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, VP  
Name & Title of Responsible Official

\_\_\_\_\_  
Signature

12/2/2016  
Date

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSU M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 24hr: 100% END: 100% EFFLUENT 24hr: 100% END 100%

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 24h 100% END 100% EFFLUENT 24hr: 100% END 100%

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number AL0077771 DSN: 041 Winston County  
 Permittee: Birmingham Coal & Coke Company, Inc. Facility Name: Old Union Mine  
 Agent Submitting Report: Greg Jones Lab Conducting Toxicity  
 Month Toxicity tests required: Qtr# 3 - 2016 Tests: Bham Coal & Coke  
 Type test required is 48-hour acute screening

Test Organism Ceriodaphnia dubia					Test Organism Pimephales promelas				
Date/Time Start	Date/Time End	Valid	Date/Time Start	Date/Time End	Valid				
7/12/2016 11AM	7/14/2016 11AM	Yes	7/12/2016 11AM	7/14/2016 11AM	Yes				

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	15		7.6				26

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
041	7/11/2016	4	7/12/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

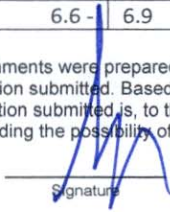
**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L		ph. Range s.u.		Light in average ft -c
P.p	24.0 - 24.1	6.6 -	6.9	7.3-	7.6	75
C.d.	24.0 - 24.1	6.6 -	6.9	7.3-	7.6	75

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, VP  
Name & Title of Responsible Official

  
Signature

12/2/2016  
Date

Facility Name Old Union Mine NPDES# AL0077771 DSN 041 DATE 7/11/16

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSUM M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END: 100% EFFLUENT 100% END 100%  
 24hr: 24hr:

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END 100% EFFLUENT 100% END 100%  
 24h 24hr:

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
TOXICITY TEST REPORT SUMMARY**

**1. GENERAL**

NPDES Permit Number AL0077771 DSN: 044 Winston County  
 Permittee: Birmingham Coal & Coke Company, Inc. Facility Name: Old Union Mine  
 Agent Submitting Report: Greg Jones Lab Conducting Toxicity  
 Tests: Bham Coal & Coke  
 Month Toxicity tests required: Qtr# 3 - 2016 Type test required is 48-hour acute screening

Test Organism Ceriodaphnia dubia			Test Organism Pimephales promelas		
Date/Time Start	Date/Time End	Valid	Date/Time Start	Date/Time End	Valid
7/12/2016 11AM	7/14/2016 11AM	Yes	7/12/2016 11AM	7/14/2016 11AM	Yes

**2. SUMMARY OF RESULTS FOR SCREENING TESTS**

Test Organism	Effluent Concentration	Survival	Reproduction	Growth
Pimephales promelas	100%	Pass	NA	NA
Ceriodaphnia dubia	100%	Pass	NA	NA

**3. LABORATORY ANALYSIS OF UNDILUTED SAMPLE**

BOD mg/L	TSS mg/L	NH3 mg/L	pH s.u.	TRC mg/L	Alkalinity mg/L	Hardness mg/L	Conductivity uS
	11		7.2				41

Analysis performed by Bham Coal & Coke Instantaneous flow : 0.01 mgd

**4. SAMPLE COLLECTION**

Sample ID	Date Collected	Arrival Temp. C	Used in Test	Receiving water
044	7/11/2016	4	7/12/2016	

**5. CONTROL / DILUTION WATER**

Type	Prepared Date	Begin Use Date	Initial Water Chemistries				
			Hardness	Alk	pH	Cond	@ C
Stream	4/5/2016	4/5/2016			7.6	32	24

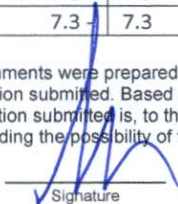
**6. TOXICITY TEST INFORMATION**

Test Species	Organism Age	Organism Source	Test Solution Concentrations		Test Vessel Type	Vessel Vol (mL)	Solution Volume (mL)	Organisms / Vessel	Replicates
P.p.	<24 hours	MBB	Control	100%	Plastic Beaker	500	250	10	2
C.d.	<24 hours	MBB	Control	100%	Plastic Beaker	25	20	5	4

Test Species	Temp Range C	D.O. Range mg/L		ph. Range s.u.		Light in average ft -c
P.p	24.0 - 24.1	7.3 -	7.3	7-	7.3	75
C.d.	24.0 - 24.1	7.3 -	7.3	7-	7.3	75

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, VP  
Name & Title of Responsible Official

  
Signature

12/2/2016  
Date

Facility Name Old Union Mine NPDES# AL0077771 DSN 044 DATE 7/11/16

**7. FEEDING**

No Feed	Brine Shrimp	Fed 0.15 g suspension of newly hatched larvae 2 times daily
	YCT	Fed 0.12 mL suspension containing 1.9 g/L Daily
	Algae	Fed 0.12 mL suspension containing 3.5 x 10 <sup>7</sup> algae cells Daily

**8. REFERENCE TOXICANT TESTS**

Reference toxicant: NaCl Source: Hach  
 Solution Concentration Unit is mg/L

Test org.	Test Date	Control Water	Reference test Solution Concentration						
			Control	5	6	7	8	9	10
P.p.			Control	5	6	7	8	9	10
C.d.			Control	1.25	1.5	1.75	2.00	2.25	2.5

Test Org.	LC50 Results	Lower 95%	Upper 95%	CUSUM M LCL	CUSUM UCL	Number
P.p.	7.60	7.10	7.90	6.90	8.30	24.00
C.d.	1.70	1.50	1.90	1.62	1.97	24.00

**9. TEST CONDITION VARABILITY**

No deviation from standard test conditions  
 No Test solution manipulations or test modifications

**10. REQUIRED REPORT ATTACHMENTS**

Attach copies of chain-of-custody forms, reference toxicant tests, and raw data (bench sheets) pertaining to physical, chemical and biological measurements for all tests. Include suspended, interrupted or discontinued toxicity test data.

**11. CHRONIC SCREENING TOXICITY TEST RESULTS (Freshwater)**

TEST ORGANISM: Ceriodaphnia dubia

Were neonates used to begin the test within 8 hours of the same age? **YES**

Did 60% of the control females produce their third brood? **NA**

**SURVIVAL**

Chronic toxicity indicated: **NO**

**NO SURVIVAL STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END: 100% EFFLUENT 100% END 100%  
 24hr: 24hr:

**REPRODUCTION** (Average neonates per female) **Not applicable**

TEST ORGANISM: Pimephales promelas

MORTALITY

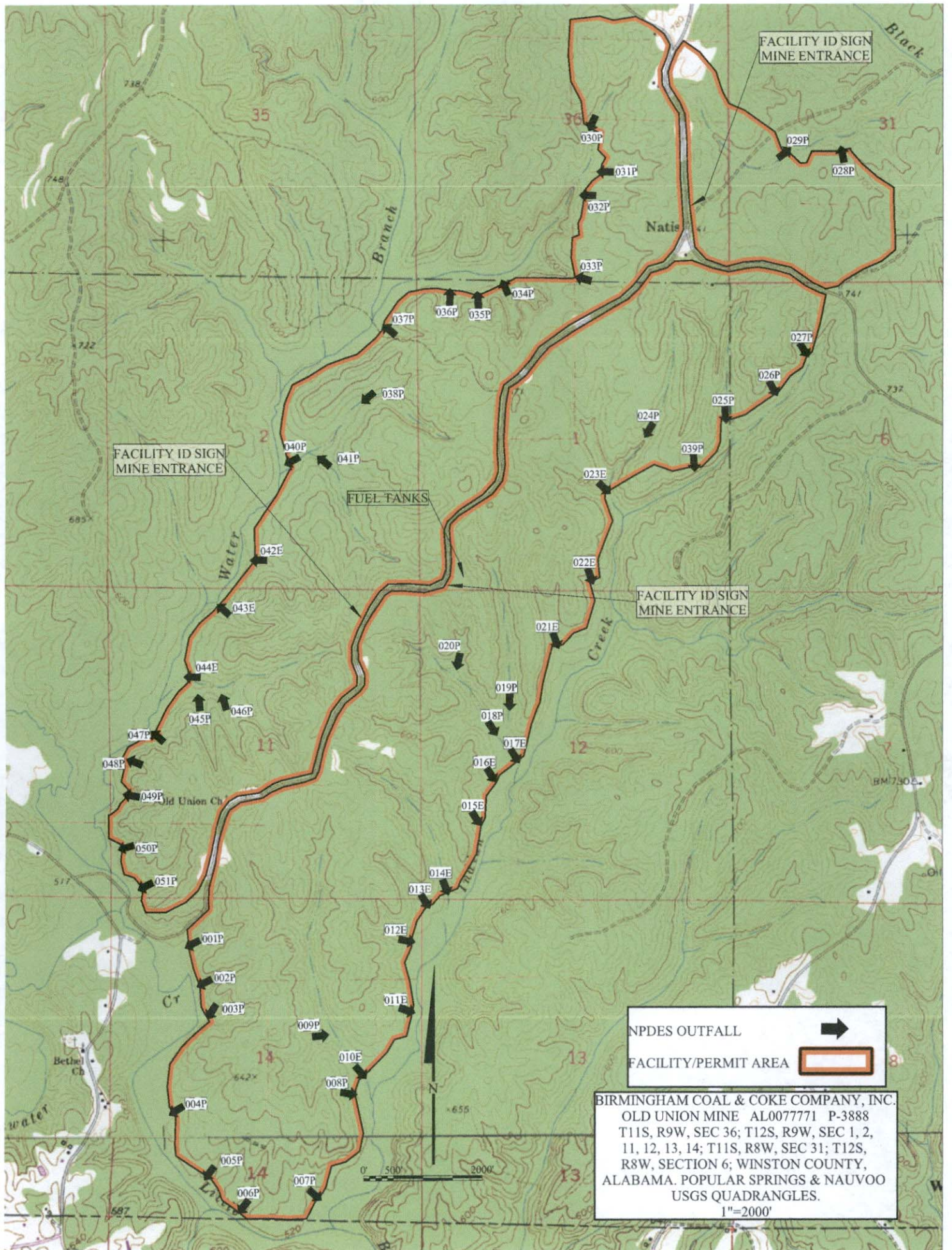
CHRONIC TOXICITY INDICATED: **NO**

**NO MORTALITY STATISTICAL ANALYSIS IS NECESSARY.**

CONTROL 100% END 100% EFFLUENT 100% END 100%  
 24h 24hr:

GROWTH - Mean dry weight (mg) **NOT APPLICABLE**





FACILITY ID SIGN  
MINE ENTRANCE

FUEL TANKS

FACILITY ID SIGN  
MINE ENTRANCE

NPDES OUTFALL



FACILITY/PERMIT AREA



BIRMINGHAM COAL & COKE COMPANY, INC.  
 OLD UNION MINE AL0077771 P-3888  
 T11S, R9W, SEC 36; T12S, R9W, SEC 1, 2,  
 11, 12, 13, 14; T11S, R8W, SEC 31; T12S,  
 R8W, SECTION 6; WINSTON COUNTY,  
 ALABAMA. POPULAR SPRINGS & NAUVOO  
 USGS QUADRANGLES.  
 1"=2000'

**YELLOWHAMMER ENERGY SOLUTIONS, LLC**WWW.COMFUCHECKS.COM 888.326.5381**2734**

Alabama Department of Environmental Manag

12/8/2016

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
12/8/2016	Bill	0077771	6,835.00	6,835.00		6,835.00
					Check Amount	6,835.00

Servis 1st Bank

6,835.00



YELLOWHAMMER ENERGY SOLUTIONS, LLC.  
912 EDENTON STREET  
BIRMINGHAM, AL 35242



1000



38109

U.S. POSTAGE  
PAID  
JASPER, AL  
36021  
DEC 28 18  
AMOUNT

**\$1.99**

R2304M115094-02

Alabama Department of Environmental Management  
Attn: Michael T Bergh  
Environmental Engineering Specialist  
Water Division; Stormwater Management Branch  
1400 Coliseum Boulevard  
Montgomery, AL 36109

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL007777L</b>		Applicant: <b>Birmingham Coal &amp; Coke Company, Inc.</b>				Facility: <b>Old Union Mine</b>	
Outfall Sampled <sup>1</sup> : <b>017E</b>	Date of Sampling: <b>03/27/2017</b>	Was Sample Taken In-Pond? <b>No</b>	Was Sample Taken from Discharge? <b>Yes</b>	Substantially Identical Outfalls: 001P-009P, 010E-013E, 015E-017E, 018P-020P, 021E-023E, 024P-040P, 041E-044E, 045P, 046P, 047E, 048P, 049E-051E		Description of Discharge: <b>Surface mining rain water runoff discharge</b>	

Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

Pollutant and CAS No. (if available)	Mark "X"			Effluent										Instream				
	Existing Outfall (Testing Required)	Proposed Outfall - Parameter Believed Present	Proposed Outfall - Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used?	Method Detection Limit (µg/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>2</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Dissolved (7440-36-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	3.7460		20		
2M. Arsenic, Trivalent (7440-38-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.3	3.7460		20		
3M. Beryllium, Dissolved (7440-41-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	3.7460		20		
4M. Cadmium, Dissolved (7440-43-9)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	3.7460		20		
5M. Chromium, Dissolved (7440-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	3.7460		20		
6M. Copper, Dissolved (7440-50-8)	X		X	BML	N/A					1	Precip. Based	200.8	0.9	3.7460		20		
7M. Lead, Dissolved (7439-92-1)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	3.7460		20		
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	3.7460		20		
9M. Nickel, Dissolved (7440-02-0)	X		X	BML	N/A					1	Precip. Based	200.8	6.86	3.7460		20		
10M. Selenium, Total (7782-49-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.95	3.7460		20		
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	3.7460		20		
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	3.7460		20		
13M. Zinc, Dissolved (7440-66-6)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	3.7460		20		
14M. Cyanide, Total (57-12-0)	X		X	20	1.66E-7					1	Precip. Based	335.4	3	3.7460		20		
15M. Phenols, Total	X		X	40	3.32E-7					1	Precip. Based	420.1	6	3.7460		20		

ND = Not Detectable    BML = Below Minimum Level

RECEIVED

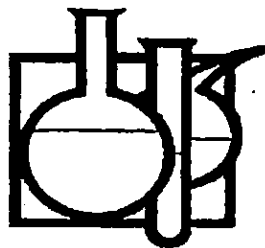
<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(i).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.

JUL 1 2 2017

STORM WATER  
MANAGEMENT BRANCH



# GUARDIAN SYSTEMS, INC.

1108 Ashville Road  
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Leeds, Alabama 35094

Telephone (205) 699-6647  
Toll Free (866) 729-7211  
Fax (205) 699-3882

Page 2 of 7

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 03/27/2017  
Receive Date: 02/22/2017  
Receive Time: 8:45

Attention: Mr. Greg Jones

Control No : 1702-00338    Sample # 002  
Sampler : GJ  
Sample ID: 00-017

Sample Date: 02/21/2017  
Sample Time: 14:10

AL07771

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.	ug/L	TLB	02/27/2017	22:11	335.4	(1)
Phenolics(4AAP)	<6.	ug/L	MJN	02/27/2017	10:30	420.1	(1)
Mercury, Total	<0.01	ug/L	DRH	02/24/2017	10:00	245.7	
Selenium, Total	<0.95	ug/L	DRH	03/01/2017	10:00	200.8	
Antimony, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Beryllium, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Chromium, Dissolved	<1.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	03/01/2017	10:00	200.8	
Nickel, Dissolved	6.0	ug/L	DRH	03/03/2017	12:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	03/01/2017	10:00	200.8	
Zinc, Dissolved	10.	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	03/03/2017	12:00	200.8	
Arsenic, Trivalent	<0.3	ug/L	DRH	03/01/2017	10:00	200.8	

This Certificate is Continued On Next Page.

### 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, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> Edition, Updated IV December 1996
4. 1987 ASTM Annual Standards
5. Code of Federal Regulations, Title 40, Part 136, Appendix A, Revised July 1996
6. Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1996

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL0077771</b>		Applicant: <b>Birmingham Coal &amp; Coke Company, Inc.</b>			Facility: <b>Old Union Mine</b>	
Outfall Sampled <sup>1</sup> : <b>014E</b>	Date of Sampling: <b>03/27/2017</b>	Was Sample Taken In-Pond? <b>No</b>	Was Sample Taken from Discharge? <b>Yes</b>	Substantially Identical Outfalls:	Description of Discharge: <b>Surface mining rain water runoff from a Coal Stock Yard discharge</b>	

Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

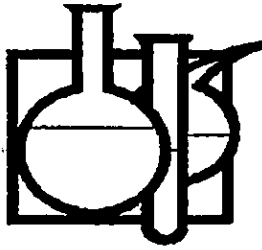
Pollutant and CAS No. (If available)	Mark "X"			Effluent										Instream				
	Existing Outfall (Testing Required)	Proposed Outfall - Parameter Believed Present	Proposed Outfall - Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used <sup>2</sup>	Method Detection Limit (µg/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>3</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Dissolved (7440-36-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	2.4834		20		
2M. Arsenic, Trivalent (7440-38-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.3	2.4834		20		
3M. Beryllium, Dissolved (7440-43-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	2.4834		20		
4M. Cadmium, Dissolved (7440-43-9)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	2.4834		20		
5M. Chromium, Dissolved (7440-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	2.4834		20		
6M. Copper, Dissolved (7440-50-8)	X		X	BML	N/A					1	Precip. Based	200.8	0.9	2.4834		20		
7M. Lead, Dissolved (7439-92-1)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	2.4834		20		
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	2.4834		20		
9M. Nickel, Dissolved (7440-02-0)	X		X	24	1.992E-7					1	Precip. Based	200.8	6.86	2.4834		20		
10M. Selenium, Total (7782-49-2)	X		X	1	8.3E-9					1	Precip. Based	200.8	0.95	2.4834		20		
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	2.4834		20		
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	2.4834		20		
13M. Zinc, Dissolved (7440-66-6)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	2.4834		20		
14M. Cyanide, Total (57-12-6)	X		X	20	1.66E-7					1	Precip. Based	335.4	3	2.4834		20		
15M. Phenols, Total	X		X	40	3.32E-7					1	Precip. Based	420.1	6	2.4834		20		

ND = Not Detectable      BML = Below Minimum Level

<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(f).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.



# GUARDIAN SYSTEMS, INC.

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Leeds, Alabama 35094

Telephone (205) 699-6647  
Toll Free (866) 729-7211  
Fax (205) 699-3882

Page 1 of 7

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 03/27/2017  
Receive Date: 02/22/2017  
Receive Time: 8:45

Attention: Mr. Greg Jones

Control No : 1702-00338    Sample # 001  
Sampler : GJ  
Sample ID: 00-014

Sample Date: 02/21/2017  
Sample Time: 13:25

*AL 007777*

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.	ug/L	TLB	02/27/2017	22:11	335.4	(1)
Phenolics(4AAP)	<6.	ug/L	MJN	02/27/2017	10:30	420.1	(1)
Mercury, Total	<0.01	ug/L	DRH	02/24/2017	10:00	245.7	
Selenium, Total	1.0	ug/L	DRH	03/01/2017	10:00	200.8	
Antimony, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Beryllium, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Chromium, Dissolved	<1.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	03/01/2017	10:00	200.8	
Nickel, Dissolved	24.	ug/L	DRH	03/03/2017	12:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	03/01/2017	10:00	200.8	
Zinc, Dissolved	9.	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	03/03/2017	12:00	200.8	
Arsenic, Trivalent	<0.3	ug/L	DRH	03/01/2017	10:00	200.8	

This Certificate is Continued On Next Page.

### 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, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1996

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL007771</b>		Applicant: <b>Birmingham Coal &amp; Coke Co., Inc.</b>			Facility: <b>Old Union Mine</b>	
Outfall Sampled <sup>1</sup> : <b>Up Stream Little Black Water Creek</b>	Date of Sampling: <b>04/19/2017</b>	Was Sample Taken In-Pond? <b>N/A</b>	Was Sample Taken from Discharge? <b>N/A</b>	Substantially Identical Outfalls: <b>N/A</b>	Description of Discharge: <b>Stream</b>	

Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

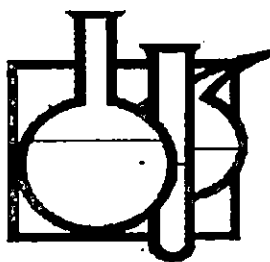
Pollutant and CAS No. (If available)	Mark "X"			Effluent										Instream				
	Existing Outfall (Testing Required)	Proposed Outfall – Parameter Believed Present	Proposed Outfall – Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (If available)		Long Term Average Value (If available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used <sup>2</sup>	Method Detection Limit (µg/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>3</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Dissolved (7420-36-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	N/A			192.0	
2M. Arsenic, Trivalent (7440-38-2)	X		X	0.37	3.087E-9					1	Precip. Based	200.8	0.3	N/A			192.0	
3M. Beryllium, Dissolved (7440-11-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	N/A			192.0	
4M. Cadmium, Dissolved (7440-43-9)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
5M. Chromium, Dissolved (7440-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	N/A			192.0	
6M. Copper, Dissolved (7440-50-8)	X		X	1.35	1.126E-8					1	Precip. Based	200.8	0.9	N/A			192.0	
7M. Lead, Dissolved (7439-92-1)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	N/A			192.0	
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	N/A			192.0	
9M. Nickel, Dissolved (7440-02-0)	X		X	BML	N/A					1	Precip. Based	200.8	6.86	N/A			192.0	
10M. Selenium, Total (7782-49-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.95	N/A			192.0	
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	N/A			192.0	
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
13M. Zinc, Dissolved (7440-66-4)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	N/A			192.0	
14M. Cyanide, Total (57-12-5)	X		X	BML	N/A					1	Precip. Based	335.4	3	N/A			192.0	
15M. Phenols, Total	X		X	BML	N/A					1	Precip. Based	420.1	6	N/A			192.0	

<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(f).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.





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Fax (205) 699-3882

Page 5 of 7

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 03/27/2017  
Receive Date: 02/22/2017  
Receive Time: 8:45

Attention: Mr. Greg Jones

Control No : 1702-00338    Sample # 005  
Sampler : GJ  
Sample ID: OU - *Little Blackwater Creek*

Sample Date: 02/21/2017  
Sample Time: 13:50

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.0	ug/L	TLB	02/27/2017	22:11	335.4	(1)
Phenolics, Chloroform Ext.	<6.	ug/l	MJN	02/27/2017	10:30	420.1	(1)
Mercury, Total	<0.01	ug/L	DRH	02/24/2017	10:00	245.7	
Selenium, Total	<0.95	ug/L	DRH	03/01/2017	10:00	200.8	
Antimony, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Beryllium, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Chromium, Dissolved	<1.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	03/01/2017	10:00	200.8	
Nickel, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	03/01/2017	10:00	200.8	
Zinc, Dissolved	5.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	03/03/2017	12:00	200.8	
Arsenic, Trivalent	<0.3	ug/l	DRH	03/01/2017	10:00	200.8	
Hardness, Total	20.	mg/L	DRH	03/09/2017	12:00	200.7	
Calcium	3.81	mg/L	DRH	03/09/2017	12:00	200.7	(1)
Magnesium	2.49	mg/L	DRH	03/09/2017	12:00	200.7	(1)

This Certificate is Continued On Next Page.

### METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-20, revised March 1983, August 1983 May 1984
2. Standard Methods for the Examination of Water and Waste Water, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1996

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL0077771</b>		Applicant: <b>Birmingham Coal &amp; Coke Co., Inc.</b>			Facility: <b>Old Union Mine</b>
Outfall Sampled?: <b>Up Stream Indian Creek</b>	Date of Sampling: <b>03/27/2017</b>	Was Sample Taken In-Pond? <b>N/A</b>	Was Sample Taken from Discharge? <b>N/A</b>	Substantially Identical Outfalls: <b>N/A</b>	Description of Discharge: <b>Stream</b>

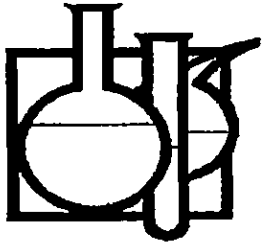
Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility, or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

Pollutant and CAS No. (if available)	Mark "X"			Effluent										Instream				
	Existing Outfall (Testing Required)	Proposed Outfall - Parameter Believed Present	Proposed Outfall - Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used <sup>2</sup>	Method Detection Limit (µg/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>3</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
11A. Antimony, Dissolved (7440-36-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	N/A		192.0		
12A. Arsenic, Trivalent (7440-38-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.3	N/A		192.0		
3M. Beryllium, Dissolved (7662-31-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	N/A		192.0		
4M. Cadmium, Dissolved (7440-43-9)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A		192.0		
5M. Chromium, Dissolved (744-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	N/A		192.0		
6M. Copper, Dissolved (7440-50-8)	X		X	BML	N/A					1	Precip. Based	200.8	0.9	N/A		192.0		
7M. Lead, Dissolved (7439-92-1)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	N/A		192.0		
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	N/A		192.0		
9M. Nickel, Dissolved (7440-02-0)	X		X	BML	N/A					1	Precip. Based	200.8	6.86	N/A		192.0		
10A. Selenium, Total (7782-49-2)	X		X	0.56	8.011E-9					1	Precip. Based	200.8	0.95	N/A		192.0		
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	N/A		192.0		
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A		192.0		
13M. Zinc, Dissolved (7440-66-6)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	N/A		192.0		
14M. Cyanide, Total (57-12-8)	X		X	BML	N/A					1	Precip. Based	335.4	3	N/A		192.0		
15M. Phenols, Total	X		X	BML	N/A					1	Precip. Based	420.1	6	N/A		192.0		

<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 135 and 40 CFR 122.21(g)(2)(i).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.



# GUARDIAN SYSTEMS, INC.

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P.O. Box 190  
Leeds, Alabama 35094

Telephone (205) 699-6647  
Toll Free (866) 729-7211  
Fax (205) 699-3882

Page 2 of 3

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 04/11/2017  
Receive Date: 03/27/2017  
Receive Time: 14:10

Attention: Mr. Greg Jones

Control No : 1703-00329 Sample # 002  
Sampler : GJ  
Sample ID: Indian Creek - Up

Sample Date: 03/27/2017  
Sample Time: 12:15

AL 0077771

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.	ug/L	TLB	03/28/2017	13:21	335.4	(1)
Mercury, Total	<0.01	ug/L	CFS	03/31/2017	15:30	245.7	
Selenium, Total	0.96	ug/L	DRH	04/07/2017	16:00	200.8	
Antimony, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	
Beryllium, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	04/07/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Chromium, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	04/07/2017	10:00	200.8	
Nickel, Dissolved	2.44	ug/L	DRH	04/07/2017	16:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	04/07/2017	10:00	200.8	
Zinc, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	04/07/2017	10:00	200.8	
Arsenic, Trivalent	<0.3	ug/L	DRH	04/07/2017	10:00	200.8	
Phenolics, Chloroform Ext.	<6.	ug/L	MJN	03/29/2017	15:00	420.1	(1)

This Certificate is Continued On Next Page.

### 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, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1996

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL0077771</b>		Applicant: <b>Birmingham Coal &amp; Coke Co., Inc.</b>			Facility: <b>Old Union Mine</b>
Outfall Sampled <sup>2</sup> : <b>Up Stream Water Branch</b>	Date of Sampling: <b>03/27/2017</b>	Was Sample Taken In-Pond? <b>N/A</b>	Was Sample Taken from Discharge? <b>N/A</b>	Substantially Identical Outfalls: <b>N/A</b>	Description of Discharge: <b>Stream</b>

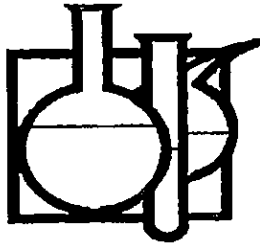
Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

Pollutant and CAS No. (if available)	Mark "X"				Effluent										Instream			
	Existing Outfall (Testing Required)	Proposed Outfall - Parameter Believed Present	Proposed Outfall - Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Use <sup>2</sup>	Method Detection Limit (µg/L)	Receiving Water 7C10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>3</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Dissolved (7440-36-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	N/A			192.0	
2M. Arsenic, Trivalent (7440-38-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.3	N/A			192.0	
3M. Beryllium, Dissolved (7440-41-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	N/A			192.0	
4M. Cadmium, Dissolved (7440-43-5)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
5M. Chromium, Dissolved (744-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	N/A			192.0	
6M. Copper, Dissolved (7440-50-8)	X		X	BML	N/A					1	Precip. Based	200.8	0.9	N/A			192.0	
7M. Lead, Dissolved (7439-92-3)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	N/A			192.0	
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	N/A			192.0	
9M. Nickel, Dissolved (7440-02-6)	X		X	BML	N/A					1	Precip. Based	200.8	6.86	N/A			192.0	
10M. Selenium, Total (7782-49-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.95	N/A			192.0	
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	N/A			192.0	
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
13M. Zinc, Dissolved (7440-66-6)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	N/A			192.0	
14M. Cyanide, Total (57-12-6)	X		X	BML	N/A					1	Precip. Based	335.4	3	N/A			192.0	
15M. Phenols, Total	X		X	BML	N/A					1	Precip. Based	420.1	6	N/A			192.0	

<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(i).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.



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Page 1 of 3

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 04/11/2017  
Receive Date: 03/27/2017  
Receive Time: 14:10

Attention: Mr. Greg Jones

Control No: 1703-00329 Sample # 001  
Sampler: GJ  
Sample ID: Water Branch- Up

Sample Date: 03/27/2017  
Sample Time: 11:55

AL 007771

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.	ug/L	TLB	03/28/2017	13:21	335.4	(1)
Mercury, Total	<0.01	ug/L	CFS	03/31/2017	15:30	245.7	
Selenium, Total	<0.95	ug/L	DRH	04/07/2017	16:00	200.8	
Antimony, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	
Beryllium, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	04/07/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Chromium, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	04/07/2017	10:00	200.8	
Nickel, Dissolved	<1.	ug/L	DRH	04/07/2017	16:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	04/07/2017	10:00	200.8	
Zinc, Dissolved	1.19	ug/L	DRH	04/07/2017	16:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	04/07/2017	10:00	200.8	
Arsenic, Trivalent	<0.3	ug/L	DRH	04/07/2017	10:00	200.8	
Phenolics, Chloroform Ext.	<6.	ug/L	MJN	03/29/2017	15:00	420.1	(1)

This Certificate is Continued On Next Page.

### METHOD REFERENCES

1. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-70-20, revised March 1983, August 1993 May 1994
2. Standard Methods for the Examination of Water and Waste Water, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1996

## NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: <b>AL0077771</b>		Applicant: <b>Birmingham Coal &amp; Coke Co., Inc.</b>			Facility: <b>Old Union Mine</b>	
Outfall Sampled: <b>Up Stream Brown Creek</b>	Date of Sampling: <b>04/19/2017</b>	Was Sample Taken In-Pond? <b>N/A</b>	Was Sample Taken from Discharge? <b>N/A</b>	Substantially Identical Outfalls: <b>N/A</b>	Description of Discharge: <b>Stream</b>	

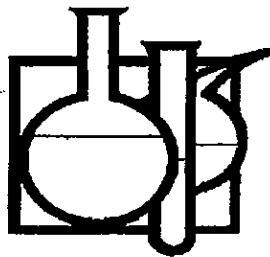
Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate column for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.

Pollutant and CAS No. (If available)	Mark "X"			Effluent										Instream				
	Existing Outfall (Testing Required)	Proposed Outfall – Parameter Believed Present	Proposed Outfall – Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (If available)		Long Term Average Value (If available)		# of Analyses	Frequency of Discharge (Days/Month Hours/Day)	EPA Approved Method Analysis Used <sup>2</sup>	Method Detection Limit (µg/L)	Receiving Water 7Q10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO <sub>3</sub> ) <sup>3</sup>	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Dissolved (7440-35-0)	X		X	BML	N/A					1	Precip. Based	200.8	1.92	N/A			192.0	
2M. Arsenic, Trivalent (7440-38-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.3	N/A			192.0	
3M. Beryllium, Dissolved (7440-41-7)	X		X	BML	N/A					1	Precip. Based	200.8	2.2	N/A			192.0	
4M. Cadmium, Dissolved (7440-43-9)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
5M. Chromium, Dissolved (7440-47-3)	X		X	BML	N/A					1	Precip. Based	200.8	1.64	N/A			192.0	
6M. Copper, Dissolved (7440-50-8)	X		X	2.34	1.952E-8					1	Precip. Based	200.8	0.9	N/A			192.0	
7M. Lead, Dissolved (7439-92-1)	X		X	BML	N/A					1	Precip. Based	200.8	0.31	N/A			192.0	
8M. Mercury, Total (7439-97-6)	X		X	BML	N/A					1	Precip. Based	245.7	0.01	N/A			192.0	
9M. Nickel, Dissolved (7440-02-0)	X		X	BML	N/A					1	Precip. Based	200.8	6.86	N/A			192.0	
10M. Selenium, Total (7782-49-2)	X		X	BML	N/A					1	Precip. Based	200.8	0.95	N/A			192.0	
11M. Silver, Dissolved (7440-22-4)	X		X	BML	N/A					1	Precip. Based	200.8	0.15	N/A			192.0	
12M. Thallium, Dissolved (7440-28-0)	X		X	BML	N/A					1	Precip. Based	200.8	0.08	N/A			192.0	
13M. Zinc, Dissolved (7440-66-6)	X		X	BML	N/A					1	Precip. Based	200.8	16.45	N/A			192.0	
14M. Cyanide, Total (57-12-5)	X		X	BML	N/A					1	Precip. Based	335.4	3	N/A			192.0	
15M. Phenols, Total	X		X	BML	N/A					1	Precip. Based	420.1	6	N/A			192.0	

<sup>1</sup> Sampling results must be representative of the discharge.

<sup>2</sup> Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(i).

<sup>3</sup> Instream Hardness (CaCO<sub>3</sub>) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.



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Page 1 of 2

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 05/03/2017  
Receive Date: 04/20/2017  
Receive Time: 10:20

Attention: Mr. Greg Jones

Control No : 1704-00327    Sample # 001  
Sampler : GJ  
Sample ID: BC- UP Brown Creek Up

Sample Date: 04/19/2017  
Sample Time: 12:30

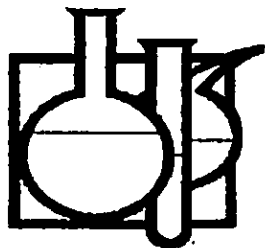
## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.0	ug/L	TLB	05/02/2017	15:45	335.4	(1)
Beryllium, Dissolved	<1.	ug/L	DRH	04/26/2017	10:00	200.8	
Copper, Dissolved	2.34	ug/L	DRH	04/26/2017	10:00	200.8	(1)
Cadmium, Dissolved	<0.08	ug/L	DRH	04/26/2017	15:00	200.8	(1)
Chromium, Dissolved	<1.	ug/L	DRH	04/26/2017	10:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	04/26/2017	15:00	200.8	
Nickel, Dissolved	<1.	ug/L	DRH	04/26/2017	10:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	04/26/2017	15:00	200.8	
Zinc, Dissolved	4.10	ug/L	DRH	04/26/2017	10:00	200.8	(1)
Mercury, Total	<0.01	ug/L	CFS	04/28/2017	11:20	245.7	
Selenium, Total	<0.95	ug/L	DRH	04/26/2017	10:00	200.8	
Antimony, Dissolved	<1.	ug/L	DRH	04/26/2017	10:00	200.8	
Thallium, Dissolved	<0.08	ug/L	DRH	04/26/2017	15:00	200.8	
Arsenic, Trivalent	<0.3	ug/L	DRH	04/26/2017	15:00	200.8	
Phenolics, Chloroform Ext.	<6.	ug/L	MJN	04/25/2017	10:00	420.1	(1)

This Certificate is Continued On Next Page.

### 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, 16<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-846, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
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Fax (205) 699-3882

Page 5 of 7

Yellowhammer Energy Services  
912 Edenton Street  
Birmingham, AL 35242

Report Date: 03/27/2017  
Receive Date: 02/22/2017  
Receive Time: 8:45

Attention: Mr. Greg Jones

Control No : 1702-00338    Sample # 005  
Sampler : GJ  
Sample ID: 00-DOWN

Sample Date: 02/21/2017  
Sample Time: 13:50

## Laboratory Certificate

PARAMETER	RESULTS	UNITS	ANALYST	DATE	TIME	METHOD	REF
Cyanide (Total)	<3.0	ug/L	TLB	02/27/2017	22:11	335.4	(1)
Phenolics(4AAP)	<6.	ug/l	MJN	02/27/2017	10:30	420.1	(1)
Mercury, Total	<0.01	ug/L	DRH	02/24/2017	10:00	245.7	
Selenium, Total	<0.95	ug/L	DRH	03/01/2017	10:00	200.8	
Antimony, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Beryllium, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Cadmium, Dissolved	<0.08	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Copper, Dissolved	<0.9	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Chromium, Dissolved	<1.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Lead, Dissolved	<0.31	ug/L	DRH	03/01/2017	10:00	200.8	
Nickel, Dissolved	<1.0	ug/L	DRH	03/03/2017	12:00	200.8	
Silver, Dissolved	<0.15	ug/L	DRH	03/01/2017	10:00	200.8	
Zinc, Dissolved	5.0	ug/L	DRH	03/09/2017	10:00	200.8	(1)
Thallium, Dissolved	<0.08	ug/L	DRH	03/03/2017	12:00	200.8	
Arsenic, Trivalent	<0.3	ug/l	DRH	03/01/2017	10:00	200.8	
Hardness, Total	20.	mg/L	DRH	03/09/2017	12:00	200.7	
Calcium	3.81	mg/L	DRH	03/09/2017	12:00	200.7	(1)
Magnesium	2.49	mg/L	DRH	03/09/2017	12:00	200.7	(1)

This Certificate is Continued On Next Page.

### 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, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup> Edition, 2012
3. Test Methods for Evaluating Solid Wastes Physical Chemical Method SW-848, 3<sup>rd</sup> 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-600/4-88/039, Revised July 1991, August 1995
7. NIOSH Manual of Analytical Methods, 4<sup>th</sup> Edition, May 1998





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Chain of Custody Record/ Analysis Report

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Contact: <u>Chae Jones</u> (yes)	Phone:
Company:	Fax:
Address:	P.O.#:
Address:	Email Address:
	Project:

Sample ID	Sample Description	Sample Date	Sample Time	Sample Preservative										Analysis Requested						
				Comp.*	Grab	Glass	Plastic	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	Cool 4°C	Other**	ZINC	CRAD	PICAND				
OU-14		2-21-17			1															
OU-17																				
OU2-110	SEE																			
OU2-115	PRE-①																			
OU-DOWN																				
OU2-DOWN																				

Sampled by: <u>[Signature]</u>	Relinquished by: <u>[Signature]</u>	Date:	Time:
Received by: _____	Relinquished by: _____	Date:	Time:
Received by: _____	Relinquished by: _____	Date:	Time:
Received for Laboratory by: <u>[Signature]</u>	Date: <u>22 Feb 17</u>	Time: <u>0845</u>	
Was Shipped Container intact when received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Initials: <u>DRJ</u>	Seals intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>N/A</u>	
Were all samples properly preserved? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Initials: <u>DRJ</u>	Sample temp. <u>4°C</u>	
Comments:			
Time On Site -			
Time Off Site -			

Put an "X" in the appropriate column for sample type and sample preservative. Write in analysis requested.  
 \* For composite samples include start and stop date and time in comments section \*\*Write in preservative used in comments

