### Mine Activity Data

#### 1. Action:
- New Entry ☐
- Update ☑

#### 2. Activity Code: E08

#### 3. Event Number: 4110076

#### 4. Date Event Started: 3/13/2006

#### 5. Date Event Finished: 4/13/2006

#### 6. Mine ID: 46-08436

#### 7a. Organization Code (Mine Assignment): 20401

#### 7b. Work Group Identifier: 01

#### 8a. Organization Code (AR Assignment): 20401

#### 8b. Work Group Identifier: 01

#### 9. Company Name: PERFORMANCE COAL COMPANY

#### 10. Mine Name: UPPER BIG BRANCH MINE-SOUTH

#### 11. Report Type (check one)
- a. First ☑
- d. Last ☐
- e. Not Applicable ☑
- f. Active Sections ☑
- i. Idle Sections ☐

#### 12. Area of Inspections
- a. Active Sections 5
- b. Idle Sections

#### 13. Number of Samples Collected
- a. Air Samples
- b. Rock Dust Spot Survey
- c. Rock Dust Survey
- d. Respirable Dust
- e. Noise
- f. Other

#### 14. Impoundments/Refuse Piles:
- a. Number
- b. FHC
- c. Configuration

#### 15. Prime Independent Contractor Codes (Major Construction)
- a. This Inspection
  - (1) New Issuances 1
  - (2) Terminations/Vacations 0
  - (3) Modifications/Extensions 2
  - (4) Left Pending
- b. Previously Issued
  - (1) Modifications/Extensions
  - (2) Terminations/Vacations

#### 16. Inspection Results
- Citations
- Orders
- Safeguards
- Other

<table>
<thead>
<tr>
<th>Type of Citation</th>
<th>Coal Opr</th>
<th>Ind Opr</th>
<th>Ind Con</th>
<th>Coal Opr</th>
<th>Ind Opr</th>
<th>Ind Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) New Issuances</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Terminations/Vacations</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Modifications/Extensions</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Left Pending</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Modifications/Extensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Terminations/Vacations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 17. Remarks:

#### 18. Signature and Card Number of Authorized Representative/Right of Entry Person(s) Responsible for Activity
- a. Signature
- b. Card Number 237675
- c. Signature
- d. Card Number

#### 19. Key Entered By
- Date
### Activity Calendar

**Event Number:** 4110076  
**Mine ID:** 4608436

<table>
<thead>
<tr>
<th>Shift</th>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thur</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3/12/2006</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3/19/2006</td>
<td></td>
<td></td>
<td></td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3/26/2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reverse, MSHA Form 2000-22, Oct 85 (Revised)**  
**Key Codes:** 1- Owl Shift, 2- Day Shift & 3- Evening Shift (Mark "X" in appropriate Block to Indicate Shift)
There was an inundation of water that occurred at this mine on March 12, 2006, when water inundated through a 18 inch bore hole from an above mine. The water entered the mine at the area of the Glory hole and flooded the inby North Mains working section. This order is issued to assure the safety of all persons at this operation. It prohibits all activity other than pumping of water at the Glory hole and inby to the North Mains section until the source of the water has been determined and stopped.
Order No. 7250744 is hereby modified to allow the operator to advance pumps to the line of crosscuts 146 at survey station #20498 on the North Mains section to pump water.
Order No. 7250744 is hereby modified to permit the operator to conduct the following work on the North Mains section: pump water, work on equipment and ventilation in preparation to resume production.
Order No. 7250744 is hereby terminated. The pilot hole drilled from the Black King I Mine (Lower Cedar Grove Seam) into the Castle Mine Powellton Seam has been grouted off above the Castle Mine.
Order No. 7250744 is hereby terminated. The pilot hole drilled from the Black King I Mine (Lower Cedar Grove Seam) into the Castle Mine Powellton Seam has been grouted off above the Castle Mine.
Order No. 7250744-03 is hereby modified to show the following change:
Section IV, "Inspection Date. Item 9, 10. To show item 9. E08, and item 10. 4110076."
SUBJECT: COMPLETED HEALTH AND SAFETY CONFERENCE

REMARKS: Attached are the results of a completed health and safety conference held for a mine in your office. The original or file copies should be placed in the appropriate mine inspection report file.

Thanks!

FROM:
Dana Hosch
(304) 877-3900-118
SUBJECT: COMPLETED HEALTH AND SAFETY CONFERENCE

REMARKS: Attached are the results of a completed health and safety conference held for a mine in your office. The original or file copies should be placed in the appropriate mine inspection report file.

Thanks!

FROM:
Dana Hosch
(304) 877-3900-118
May 3, 2006

Mr. Mike Vaught
Performance Coal Company
ID No. 46-08436
Box 69
Naoma, West Virginia 25140

Dear Mr. Vaught:

In accordance with Part 100, Title 30 CFR, this is to advise you that a Health and Safety Conference concerning the Citation(s) and/or Order(s) listed below has been scheduled at 1:00 p.m., on May 16, 2006 as per your request dated April 7 & 17, 2006. The conference will be held in the Mt. Hope MSHA office located at Mt. Hope, WV. Failure to appear as scheduled will negate your right to a conference at a future date. However, you should be aware that participation in this conference does not waive your right to a formal hearing with the Federal Mine Safety and Health Review Commission concerning these Citations and/or Orders.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>*7250745</td>
<td>*7251654</td>
<td>*7251656</td>
<td>*7251658</td>
</tr>
</tbody>
</table>

This conference has been assigned to Dana Hosch. Should you find that you are unable to attend this conference at the time scheduled or have any questions or comments, please call Mr. Hosch at (304) 877-3900 Ext. 103 as soon as possible. We appreciate your cooperation.

Sincerely,

Dana Hosch
Conference Officer
Coal Mine Safety and Health, District 4

cc: Mr. Jim Bowman, Conference Officer

Files
1. Article Addressed to:

Mike Vaught
PERFORMANCE COAL CO.
P.O. BOX 69
NAOMA WV 25140

2. Article Number
(Transfer from service label)
7005 1820 0207 7844 7509

3. Service Type
- Certified Mail
- Express Mail
- Registered
- Return Receipt for Merchandise
- Insured Mail
- C.O.D.

4. Restricted Delivery? (Extra Fee)
- Yes

Complete this section:
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

If YES, enter delivery address below:

C. Howell
5/4/06

A. Signature
X

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1?
- Yes
- No

PS Form 3811, February 2004
Domestic Return Receipt
102395-02-6M-1840

For delivery information visit our website at usps.com
DATE: 04/07/06
TO: Lincoln Selfe
FROM: Mike Vaught

RE: Request for Conference

I respectfully request to conference the following violation/violations.

Citation #: 7250745
OPERATION: Upper Big Branch Mine

ID#: 46-08436

INSPECTOR: [Redacted]

Brief description for reason of requested conference:

Gravity
April 3, 2006

Mr. Bill Potter
President
Performance Coal Company, Inc.
POB 69
Naoma, WV 25140

Dear Mr. Potter:

In accordance with Part 100, Title 30, a review of the following Citation(s)/Order(s) issued at Upper Big Branch Mine - South, ID No. 46-08436, Performance Coal Company, is being made to determine whether the regular assessment formula should be waived and a special assessment proposed.

<table>
<thead>
<tr>
<th>CITATION/ORDER NO.</th>
<th>DATE ISSUED</th>
</tr>
</thead>
<tbody>
<tr>
<td>7250745</td>
<td>03/22/06</td>
</tr>
</tbody>
</table>

You have the right to request a safety and health conference regarding this action. To exercise this right, you must submit your request for a conference to this office within 10 calendar days of the date of receipt of this letter. If you do not wish to conference this action, a response is not required.

Sincerely,

Lincoln L. Selfe, Jr.
Assistant District Manager
Coal Mine Safety & Health, District 4

cc: Files/pab
On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as the Glory hole) from a mine or mines above. After further investigation it was determined that the water came from the Black King I Mine (Lower Cedar Grove Seam). The operator failed to follow the approved ventilation plan which states that a packer will be installed and the pilot hole will be grouted off above the Castle Mine. The grouting part of the plan was not completed and a temporary packer was installed which was the contriving factor of the inundation of water in the Upper Big Branch Mine-South. There was an estimation of 4,838,849.40 gallons of water that flooded the North Mains Section of Upper Big Branch Mine. The last reported work on the pilot hole was 12/10/2005.
Performance Coal Safety
P. O. Box 69 Naoma WV 25140

Phone: 304-854-1762
Fax: 304-854-3530

Fax

To: Lincoln Selfe From: Mike Vaught
Fax: 877-3927 Pages: 04
Phone: 877-3900 Date: 04/07/06
Re: Request for citation conference CC:

Comments:
April 3, 2006

Mr. Bill Potter
President
Performance Coal Company, Inc.
POB 69
Naoma, WV 25140

Dear Mr. Potter:

In accordance with Part 100, Title 30, a review of the following Citation(s)/Order(s) issued at Upper Big Branch Mine - South, ID No. 46-08436, Performance Coal Company, is being made to determine whether the regular assessment formula should be waived and a special assessment proposed.

**CITATION/ORDER NO.** 7250745  
**DATE ISSUED** 03/22/06

You have the right to request a safety and health conference regarding this action. To exercise this right, you must submit your request for a conference to this office within 10 calendar days of the date of receipt of this letter. If you do not wish to conference this action, a response is not required.

Sincerely,

Lincoln L. Selfe, Jr.
Assistant District Manager
Coal Mine Safety & Health, District 4

cc: Files/pab
**Completing this Section**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. **Article Addressed to:**
   - Mr. Bill Potter, Pres.
   - Performance Coal Co.
   - POB 69
   - Neona, WV 25140

2. **Article Number**
   - (Transfer from service label)
   - 7002 3150 0005 2902 7542

**Completing this Section on Delivery**

- A. Signature: [User]
- B. Received by (Printed Name): C. Date of Delivery: 4-4-06

- D. Is delivery address different from item 1? (Yes/No)
  - Yes

- 3. **Service Type**
  - Certified Mail
  - Registered
  - Insured Mail
  - C.O.D.

- 4. **Restricted Delivery? (Extra Fee)** (Yes/No)
  - Yes

---

**U.S. Postal Service**

**CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

<table>
<thead>
<tr>
<th>Postage</th>
<th>$1.0259</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified Fee</td>
<td>$0.02</td>
</tr>
<tr>
<td>Return Receipt Fee (Endorsement Required)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Restricted Delivery Fee (Endorsement Required)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Total Postage &amp; Fees</td>
<td>$1.0459</td>
</tr>
</tbody>
</table>

**Send To:**
- Mr. Bill Potter, Pres.
- Performance Coal Co.
- POB 69, Neona, WV 25140

*For delivery information, visit our website at www.usps.com.*
### Special Assessment Review Form

**U.S. Department of Labor**  
**Mine Safety and Health Administration**

**1. MSHA District Office:**
- Did 4

**2. Field Office:**
- Ent Hope

**3. Mine ID/Contractor ID:**
- 46054361

**4. Mine Name:**
- Performance Coal Company

**5. Operator Name:**
- Performance Coal Company

**6. Citation/Order Number:**
- 7250745

**7. Citation/Order Issue Date:**
- 3-22-06

**8. Accident Related Violation?**
- [ ] Yes  [x] No  
  - If yes, all violations must be submitted together with any accident report or memorandum.

**9. A.) Operator Notified of Special Assessment?**
- [x] Yes  [ ] No

**B.) Health and Safety Conference Held on Special Assessment?**
- [ ] Yes  [x] No

**10. Inspector's Recommendation:**
- [ ] Yes  [ ] No
  - If yes, explain below the serious or aggravating circumstances involved.

  **Mr. Sandy, Vice President, was very surprised at the completion of the pilot hole and the final installation of a permanent pump and grouting of above the 410th miner. The pump was installed in a temporary pump each and the field hole was 12-10-05.**

  [ ] See Continuation Sheet  
  **Signature**  
  **3-22-06**

**11. Supervisor's Review:**
- [ ] Yes  [ ] No

  **Comments:**

  [ ] See Continuation Sheet  
  **Signature**  
  **3-29-06**

**12. Subdistrict Manager's/Assistant District Manager's Review:**
- [ ] Yes  [ ] No

  **Comments:**

  [ ] See Continuation Sheet  
  **Signature**  
  **3-29-06**

**13. District Manager's Review (Mandatory for Metal/Nonmetal, Optional for Coal):**
- [ ] Yes  [ ] No

  **Comments:**

  [ ] See Continuation Sheet  
  **Signature**  
  **Date**

---

MSHA Form 7000-32, May 92 (This form replaces MSHA forms 2000-203 and 4000-60)  
Conv 3 - Coal/Metal and Nonmetal
On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as the Glory hole) from a mine or mines above. After further investigation it was determined that the water came from the Black King I Mine (Lower Cedar Grove Seam). The operator failed to follow the approved ventilation plan which states that a packer will be installed and the pilot hole will be grouted off above the Castle Mine. The grouting part of the plan was not completed and a temporary packer was installed which was the contriving factor of the inundation of water in the Upper Big Branch Mine-South. There was an estimation of 4,838,849.40 gallons of water that flooded the North Mains Section of Upper Big Branch Mine. The last reported work on the pilot hole was 12/10/2005.

A packer was installed and the pilot hole was grouted off above the Castle Mine.
Citation No. 7250745 is hereby modified to show the following change: Section I, item 8. The word "contriving" is to be deleted and the word "contributing" is to be added.
Accident Investigation Data

Event Number: 4110076

A. Mine Information

1. Mine ID Number: 4608436
2. Mine Name: Upper Big Branch Mine-South
3. Operating Company Name: Performance Coal Company
4. Mine Location (Town, County, and State): Naoma, Raleigh, WV 25140

B. Mine Information

5. Mine Type: Underground
6a. Material Mined/Processed: 122200 Bituminous Coal Underground Mining
6b. Peer 487 X Part 467
7. Name Of Seam: (Coal Only) Eagle

8. Mining Data:
   a. Mining Method: Room/Piller
   b. Extraction Method: Continuous Miner (Deep Cut, Coal Only)
   c. Haulage Method(s): Shuttle Car, Conveyor Belt
   d. Are explosives used in the extraction of material? Yes [X] No

9. Employment: At Time of Accident:
   a. Underground: 34
   b. Surface: 1
10. Production (Coal only):
    Avg Tons per Day: 20000
11. Hours of Operation:
    a. Hours per Shift: 9
    b. Shifts per Day: 3
    c. Days per Week: 7

12. Number of Active MMU's: (Coal Only)
   a. Development: 0 2
   b. Retreat: 0 1

13. Methane Liberation:
    Cubic Feet in 24 hours: 651166
14. Average Mining Height:
    Feet: 7 Inches: 0 0

15. Management/Labor Officials:
    Name
    President: Bill Potter POB 69, Naoma, WV 25140
    Superintendent: Wendell Wills POB 69, Naoma, WV 25140
    Mine Foreman: Dempsey Petry POB 69, Naoma, WV 25140

B. Accident Information

16. Date (MM/DD/YYYY)/Time (24-Hr.) of Accident:
    a. Date: 03/12/2006
    b. Time: 8:55
17. Type of Investigation:
    b. Underground Location: 1 0 Glory Hole - North Mains
18. Accident Classification:
    a. Date of Accident: 03/12/2006
    b. Time: 8:55
19. Number of Fatal Non-Fatal Non-Injury: X 1 6 Inundation of Water

20. Location of Accident/Injury/Ill.
    a. Surface Location: 1 0 Glory Hole - North Mains
    b. Underground Location: 1 0

22. Equipment Involved:
    a. Type: #1
    b. Manufacturer:
    c. Model No: 76
    d. Serial Number: 696
    e. Controls:

23. Description of the Accident:

On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as Glory Hole) from a mine or mines above. was examining the Glory Hole area when he noticed water coming into the mine at 8:55 p.m. The North Mains six entry section was flooded with an estimated 4.8 million gallons of water.
24. Conclusion:
The operator failed to follow the approved ventilation plan which states that after the raise bore drill string has been removed above the Castle Mine an inflatable packer would be installed and the pilot hole would be grouted off above the Castle Mine Powellton seam. A temporary packer was installed and the grouting part of the plan was not completed which was the contributing factor of the inundation of water.

25. Enforcement Actions: Indicate P for procedure type violation, C for condition type, or T for training type.

<table>
<thead>
<tr>
<th>Violation Type</th>
<th>Citation Number</th>
<th>Regulation Cited</th>
<th>Section of the Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>7250744</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7250745</td>
<td>75.370(a)(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Violation:

- To assure the safety of all persons entering the mine.
- Operator failed to follow approved ventilation plan and did not grout the bore hole.

C. MSHA Information

28. Last Quarter NFML Injury Incidence Rate (PEIR) for:

<table>
<thead>
<tr>
<th>Industry: 5.02</th>
<th>This Mine: 6.55</th>
<th>Contractor:</th>
</tr>
</thead>
</table>

29. MSHA District Office: Mt. Hope

30. MSHA Field Office: Mt. Hope, WV

32. Lead Accident Investigator: Name; AR No; Date:

<table>
<thead>
<tr>
<th>Name:</th>
<th>AR No.: 23675</th>
<th>Date: 03/12/2006</th>
</tr>
</thead>
</table>

34. Formal Report:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
</table>

35. Report Release Date:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
</table>

Printed 04/20/2006 1:44:07 PM
**Preliminary Report of Accident**

1. **Accident Type:** No Injuries  
   2. **Accident Classification:** Inundation  
   3. **Date/Time of Accident:** 03/12/2006 11:30 PM  
   4. **Date/Time of Death:**  
   5. **Fatal Case No.:**  

6. **Mine Information:**  
   a) **Mining Company Name:** Performance Coal Company  
   b) **Mine Name:** Upper Big Branch Mine-South  
   c) **Parent of Mining Company:**  

7. **Mine Location:**  
   a) **City:** NAOMA  
   b) **County:** Raleigh  
   c) **State:** WV  

8. **Mine ID Number:** 46-08436  
9. **Union:**  

10. **Contractor Name:**  
11. **Contractor Address:**  
   a) **City:**  
   b) **County:**  
   c) **State:**  
   d) **Zip Code:**  

12. **Mine Owner:**  
13. **Number of Mine Employees:**  
   a) **Total:** 181  
   b) **Underground:** 172  
   c) **Open Pit/Quarry:**  
   d) **Mill/Prep Plant:**  
   e) **Other:**  

14. **Number of Contractor Employees:**  
   a) **Total:**  
   b) **Underground:**  
   c) **Open Pit/Quarry:**  
   d) **Mill/Prep Plant:**  
   e) **Other:**  

15. **Employer:**  
16. **Number of Injuries:** 03/12/2006 11:30 PM  
17. **Date Time of Death:**  

18. **Primary Mineral Mined:**  
   a) **Total:**  
   b) **Underground:**  
   c) **Open Pit/Quarry:**  
   d) **Mill/Prep Plant:**  
   e) **Other:**  

19. **Nonfatal Injuries:**  
20. **Fatal Injuries:**  

21. **Victim Information:**  
   a) **Name:**  
   b) **Age:**  
   c) **Regular Job Title:**  
   d) **Activity at Time of Accident:**  
      a) **Total:**  
      b) **at the mine:**  
      c) **at activity (23d):**  
      d) **with Contractor:**  

22. **Autopsy Performed:** If Yes, Location  
23. **Mine Telephone No.:** (304) 854-1456  
24. **Model:**  
25. **Event Number:**  
26. **MSHA Person Notified:** Jesse P. Cole  
27. **Date:** 03/12/2006  
   **Time:** 11:40 A  
28. **Reason For Amendment:**  

---

On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as Glory hole) from a mine or mines above. The mine employee was examining the Glory hole area when he noticed water coming into the mine through the Glory hole at 8:55 PM. The North Main six entry section was flooded.
On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as Glory hole) from a mine or mines above. The information provided in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the accident.
CASTLE MINE
MSHA ID 46-04089
STATE ID 0-11333

SURFACE REGRADAI
AFTER HOLE
DIRT FILL
SETHER

GROUTED TO SURFACE

% 20" STEEL CASING
SET BELOW WINIFREDI

\\\%

$ 0 MINE WINIFREDI SEAI

\\

+1 16/2" NON-LINED HOLE

\n
\n
\n

GROUT INSTALLED FROM BRIDGE TO SURFACE

A BRIDGE INSTALLED ABOVE BLACK KING MINE

BLACK KING MINE (LOWER CEDAR SEALED AREA)

A MINIMUM OF
2-75' OF RFC CEMENT INSTALLED ABOVE PACKER (UP TO LOWERCE.R GROVE FLOOR

INFLATABLE PACKER

Plugged 3/15/2006

CASTLE MINE POWELL POOL SEAM

GLORY HOLE TRANSFER SHAFT DOWN TO 4.B.B. MINE
## Accident Investigation Data

### A. Mine Information

<table>
<thead>
<tr>
<th>Event Number:</th>
<th>4110067</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine ID Number:</td>
<td>41608436</td>
</tr>
<tr>
<td>Mine Name:</td>
<td>Upper Big Branch Mine South</td>
</tr>
<tr>
<td>Operating Company Name:</td>
<td>Performance Coal Company, Inc.</td>
</tr>
<tr>
<td>Mine Location:</td>
<td>Montcoal, Raleigh County, West Virginia</td>
</tr>
<tr>
<td>Mine Type:</td>
<td>Underground - Coal</td>
</tr>
<tr>
<td>Material Mined/Processed:</td>
<td>122,000</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Name Of Seam:</td>
<td>Eagle</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Underground - Coal Underground Mining</td>
<td></td>
</tr>
<tr>
<td>Room/Piller:</td>
<td>1</td>
</tr>
<tr>
<td>Conveyer Belt:</td>
<td>1</td>
</tr>
<tr>
<td>Are explosives used in the extraction of material?</td>
<td>Yes</td>
</tr>
<tr>
<td>Employment:</td>
<td>At Time of Accident: 123,000</td>
</tr>
<tr>
<td>Avg Mine Employment:</td>
<td>123,000</td>
</tr>
<tr>
<td>Mine ID Number:</td>
<td>2</td>
</tr>
<tr>
<td>Mine Name:</td>
<td>Performance Coal Company, Inc.</td>
</tr>
<tr>
<td>Mine Location:</td>
<td>Montcoal, Raleigh County, West Virginia</td>
</tr>
<tr>
<td>Mine Type:</td>
<td>Underground - Coal</td>
</tr>
<tr>
<td>Material Mined/Processed:</td>
<td>122,000</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Name Of Seam:</td>
<td>Eagle</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Underground - Coal Underground Mining</td>
<td></td>
</tr>
<tr>
<td>Room/Piller:</td>
<td>1</td>
</tr>
<tr>
<td>Conveyer Belt:</td>
<td>1</td>
</tr>
<tr>
<td>Are explosives used in the extraction of material?</td>
<td>Yes</td>
</tr>
<tr>
<td>Employment:</td>
<td>At Time of Accident: 123,000</td>
</tr>
<tr>
<td>Avg Mine Employment:</td>
<td>123,000</td>
</tr>
<tr>
<td>Mine ID Number:</td>
<td>2</td>
</tr>
<tr>
<td>Mine Name:</td>
<td>Performance Coal Company, Inc.</td>
</tr>
<tr>
<td>Mine Location:</td>
<td>Montcoal, Raleigh County, West Virginia</td>
</tr>
<tr>
<td>Mine Type:</td>
<td>Underground - Coal</td>
</tr>
<tr>
<td>Material Mined/Processed:</td>
<td>122,000</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Name Of Seam:</td>
<td>Eagle</td>
</tr>
<tr>
<td>Part 46?</td>
<td>Yes</td>
</tr>
<tr>
<td>Underground - Coal Underground Mining</td>
<td></td>
</tr>
<tr>
<td>Room/Piller:</td>
<td>1</td>
</tr>
<tr>
<td>Conveyer Belt:</td>
<td>1</td>
</tr>
<tr>
<td>Are explosives used in the extraction of material?</td>
<td>Yes</td>
</tr>
<tr>
<td>Employment:</td>
<td>At Time of Accident: 123,000</td>
</tr>
<tr>
<td>Avg Mine Employment:</td>
<td>123,000</td>
</tr>
</tbody>
</table>

### B. Accident Information

| Date (MM/DD/YY): | 3-12-06 |
| Time (24Hr): | 8:55 |
| Type of Investigation: | Fatal |
| Accident Classification: | Fatal |
| Number of Independent Contractor Companies Involved in Accident: | 0 |

### Equipment Involved

<table>
<thead>
<tr>
<th>#1</th>
<th>#2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type:</td>
<td></td>
</tr>
<tr>
<td>Manufacturer:</td>
<td></td>
</tr>
<tr>
<td>Model No:</td>
<td></td>
</tr>
<tr>
<td>Serial Number:</td>
<td></td>
</tr>
</tbody>
</table>

### Methane Liberation

- **Development:**
  - Cubic Feet in 24 hours: 651,646
  - Average Mining Height: 7 feet
  - Inches: 0

### Management/Labor Officials

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Bill Patty</td>
<td>P.O. Box 69 Roane, W.V. 25140</td>
</tr>
<tr>
<td>Director</td>
<td>Kendell Hill</td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>Dave Pardy</td>
<td></td>
</tr>
</tbody>
</table>

Continued on attachment
24. Conclusion: Continued on attachment.

25. Enforcement Actions: Indicate P for procedure type violation, C for condition type, or T for training type.

<table>
<thead>
<tr>
<th>Citation Type</th>
<th>Citation Number</th>
<th>Regulation Cited</th>
<th>Section of the Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>7250744</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>P</td>
<td>7250745</td>
<td>750370(1)</td>
<td>104</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To assure the safety of all persons entering the mine.

Operator failed to follow approved ventilation plan and did not group the bore hole.

C. MSHA Information

<table>
<thead>
<tr>
<th>Last Quarter NFD</th>
<th>Contractor</th>
<th>Did Technical Support Participate?</th>
<th>Part 50 Document Control Number (Form 7000-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.02</td>
<td></td>
<td>No</td>
<td>7000-1</td>
</tr>
</tbody>
</table>

MSHA Form 7000-50a, Dec 94

Printed 01/10/2006 1:36:57 PM
## Accident Investigation Data - Victim Information

**Event Number:**

**Victim Information:**

1. **Name of Injured/Ill Employee:**
2. **Sex:**
3. **Victim's Age:**
4. **Last Four Digits Of SSN:**
5. **Degree of Injury:**

6. **Date (MM/DD/YY) and Time (24 Hr.) Of Death:**

7. **Date and Time Started:**

8. **Regular Job Title:**
9. **Work Activity when Injured:**
   - a. Date:
   - b. Time:
   - a. Date:
   - b. Time:
   - a. Date:
   - b. Time:

10. **Was this work activity part of regular job?**
   - Yes
   - No

11. **Experience Years Weeks Days**
   - a. This Work Activity:
   - b. Regular Job Title:
   - c. This Work Activity:
   - d. Total Years Weeks Days

12. **What Directly Inflicted Injury or Illness?**

13. **Nature of Injury or Illness:**

14. **Training Deficiencies:**
   - Hazard:
   - New/Newly-Employed Experienced Miner:
   - Annual:
   - Task:

15. **Company of Employment: (If different from production operator)**

16. **On-site Emergency Medical Treatment:**
   - Not Applicable:
   - First-Aid:
   - CPR:
   - EMT:
   - Medical Professional:
   - None:

17. **Part 50 Document Control Number: (form 7000-1)**

18. **Union Affiliation of Victim:**

---

**Victim Information: 2**

1. **Name of Injured/Ill Employee:**
2. **Sex:**
3. **Victim's Age:**
4. **Last Four Digits Of SSN:**
5. **Degree of Injury:**

6. **Date (MM/DD/YY) and Time (24 Hr.) Of Death:**

7. **Date and Time Started:**

8. **Regular Job Title:**
9. **Work Activity when Injured:**

10. **Was this work activity part of regular job?**
   - Yes
   - No

11. **Experience Years Weeks Days**
   - a. This Work Activity:
   - b. Regular Job Title:
   - c. This Work Activity:
   - d. Total Years Weeks Days

12. **What Directly Inflicted Injury or Illness?**

13. **Nature of Injury or Illness:**

14. **Training Deficiencies:**
   - Hazard:
   - New/Newly-Employed Experienced Miner:
   - Annual:
   - Task:

15. **Company of Employment: (If different from production operator)**

16. **On-site Emergency Medical Treatment:**
   - Not Applicable:
   - First-Aid:
   - CPR:
   - EMT:
   - Medical Professional:
   - None:

17. **Part 50 Document Control Number: (form 7000-1)**

18. **Union Affiliation of Victim:**

---

**Victim Information: 3**

1. **Name of Injured/Ill Employee:**
2. **Sex:**
3. **Victim's Age:**
4. **Last Four Digits Of SSN:**
5. **Degree of Injury:**

6. **Date (MM/DD/YY) and Time (24 Hr.) Of Death:**

7. **Date and Time Started:**

8. **Regular Job Title:**
9. **Work Activity when Injured:**

10. **Was this work activity part of regular job?**
   - Yes
   - No

11. **Experience Years Weeks Days**
   - a. This Work Activity:
   - b. Regular Job Title:
   - c. This Work Activity:
   - d. Total Years Weeks Days

12. **What Directly Inflicted Injury or Illness?**

13. **Nature of Injury or Illness:**

14. **Training Deficiencies:**
   - Hazard:
   - New/Newly-Employed Experienced Miner:
   - Annual:
   - Task:

15. **Company of Employment: (If different from production operator)**

16. **On-site Emergency Medical Treatment:**
   - Not Applicable:
   - First-Aid:
   - CPR:
   - EMT:
   - Medical Professional:
   - None:

17. **Part 50 Document Control Number: (form 7000-1)**

18. **Union Affiliation of Victim:**

---

MSHA Form 7000-60, Dec 94

Printed 01/10/2006 1:37:00 PM
<table>
<thead>
<tr>
<th>Event Number:</th>
<th></th>
</tr>
</thead>
</table>

### Independent Contractor Information:

<table>
<thead>
<tr>
<th>1. Company Name:</th>
<th>2. MSHA ID Number:</th>
<th>3. Type of Independent Contractor:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4. Nature of Contract Work:</th>
<th>5. Number of Independent Contractor employees On-Site at Time of Accident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Underground:</td>
</tr>
<tr>
<td></td>
<td>b. Surface:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Independent Contractor Officials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site/Other: Title Name Address</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>1. Company Name:</th>
<th>2. MSHA ID Number:</th>
<th>3. Type of Independent Contractor:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4. Nature of Contract Work:</th>
<th>5. Number of Independent Contractor employees On-Site at Time of Accident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Underground:</td>
</tr>
<tr>
<td></td>
<td>b. Surface:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Independent Contractor Officials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site/Other: Title Name Address</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>1. Company Name:</th>
<th>2. MSHA ID Number:</th>
<th>3. Type of Independent Contractor:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4. Nature of Contract Work:</th>
<th>5. Number of Independent Contractor employees On-Site at Time of Accident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Underground:</td>
</tr>
<tr>
<td></td>
<td>b. Surface:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Independent Contractor Officials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site/Other: Title Name Address</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

**MSHA Form 7000-S0c, Dec 94**

Printed 01/10/2006 1:37:02 PM
### Accident Investigation Data - Methane Ignition/Explosion Information

**Event Number:**

**A. Section Information**

1. **Ignition or Explosion:**
   - a. Ignition
   - b. Explosion

2. **Location of Ignition/Explosion:**
   - a. Description:
   - b. MMU Number:

3. **Type of Mining:**

<table>
<thead>
<tr>
<th></th>
<th>Development</th>
<th>Retreat</th>
<th>Ventilation Plan</th>
<th>Roof Control Plan</th>
<th>No Approval</th>
</tr>
</thead>
</table>

5. **Extended cut used at time of accident?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

6. **Depth extended cut approved (in feet):**

7. **Depth of extended cut at time of accident (in feet):**

**B. Dust Suppression Information**

8. **Water Spray Parameters:**
   - a. Number of water sprays required in ventilation plan:
   - b. Number of water sprays operable at time of ignition:
   - c. Water pressure required in ventilation plan (in PSI):
   - d. Water pressure measured during investigation (in PSI):
   - e. Water flow rate required in ventilation plan (in GPM):
   - f. Water flow rate measured during investigation (in GPM):
   - g. Type of water spray system (include type of scrubber and fan system):

9. **Face Ventilation Information**

10. **Ventilation Configuration:**

<table>
<thead>
<tr>
<th>a. Exhaust</th>
<th>Blowing</th>
<th>Combination</th>
</tr>
</thead>
</table>

11. **Distance from inby end of ventilation control to face:**

<table>
<thead>
<tr>
<th>a. Required in Ventilation Plan (ft.)</th>
<th>b. At time of accident (ft.)</th>
</tr>
</thead>
</table>

12. **Air Quantities (in CFM):**

<table>
<thead>
<tr>
<th>a. Air quantity required at LOC or pillar line:</th>
<th>b. Air quantity measured at LOC or pillar line:</th>
</tr>
</thead>
</table>

13. **Methane Liberation**

   | a. On Section (cubic feet each 24 hrs): |
   | b. Category (Metal and Nonmetal only): |

14. **Source of Methane Accumulation:**

   | a. Normal Liberation | b. Feeder | c. Other (Describe): |

15. **Was methane monitor functioning properly?**

   | Yes | No | N/A |

16. **Equipment involved maintained in permissible condition?**

   | Yes | No | N/A |

17. **Location of methane monitor sensing head:**

   | a. Right side | b. Left Side | c. Center | d. Distance From Face (in inches) |

18. **Barometric Pressure:**

   | a. Measurement (inhg) | b. Rising | Falling | Steady |

**E. Bit Information**

19. **Bit Type:**

20. **Bit Configuration:**

21. **Condition of Bits:**

**F. Other Information**

22. **Energy Source:**


23. **Coke samples taken:**

   | Yes | No |

24. **Other Technical Data:**

---

**MSHA Form 7000-50d, Sept. 95**

**Printed 01/10/2006 1:37:07 PM**
### A. General Information

1. **Type of Fall:**
   - a. Roof/Back
   - b. Rib
   - c. Face
   - d. Outburst
   - e. Rockburst

2. **Dimension of Fall:**
   - a. Length
   - b. Width
   - c. Thickness

3. **Width of Entry, Room, etc.:**
   - Feet
   - Inches

4. **Immediate Roof/Back Information:**
   - a. Thickness
   - b. Strata Composition

5. **Main Roof/Back Information:**
   - a. Thickness
   - b. Strata Composition

6. **Was the fall above the anchorage horizon of the bolts?**
   - Yes
   - No
   - N/A

7. **Did the fall affect ventilation resulting in less than required quantity or quality?**
   - Yes
   - No

8. **Did the fall affect the passage of workers? (entrapment)**
   - Yes
   - No

9. **Did miners have indication of the pending fall?**
   - Yes
   - No

10. **If indication was given, what type?**

### B. Fall on Working Section/Active Face Area

11. **Type of Roof Support:**

12. **Type of ATRS (Coal only):**

13. **Type of Original Support in Fall Area:**

14. **Distance Between Fall and Face:**
   - Feet
   - Inches

### C. Fall Outby Working Section/Previously Developed Area

15. **Location and Type of Entry (intake, return, main haulage, etc.):**

16. **Approximate Date of Development (MM/DD/YYYY):**
   - a. Date: __/__/____

17. **Type of Original Support in Fall Area:**

### D. Operator's Investigation

18. **Did the operator investigate the fall?**
   - Yes
   - No

19. **What did the operator determine to be the cause of the fall?**

20. **What steps did the operator take to prevent a similar occurrence?**

### E. Plan Revisions

21. **Are plan revisions anticipated (Coal only)?**
   - Yes
   - No
Subject: 8436 Inundation Description of Accident

On March 12, 2006, an inundation of water occurred at the Performance Coal Company, Upper Big Branch Mine-South, ID No. 46-08436. The water entered the mine through a borehole (known as Glory hole) from a mine or mines above. The operator was examining the Glory hole area when he noticed water coming into the mine at 8:55 p.m. The North Mains six entry section was flooded with an estimated 4.8 million gallons of water.

Conclusion:

The operator failed to follow the approved ventilation plan which states that after the raise bore drill string has been removed above the Castle Mine an inflatable packer would be installed and the pilot hole would be grouted off above the Castle Mine Powellton seam. A temporary packer was installed and the grouting part of the plan was not completed which was the contributing factor of the inundation of water.
OCT 05 2005

Mr. Bill Potter
President
Performance Coal Company
P. O. Box 69
Naoma, WV 25140

Dear Mr. Potter:

Subject: Mine Ventilation Plan, Section 75.370, 30 CFR 75, Upper Big Branch Mine-South, I.D. No. 46-08436, Performance Coal Company, Montcoal, Raleigh County, West Virginia

This will acknowledge receipt of a revision to the ventilation plan, submitted to this office and dated October 4, 2005, which includes a revised Page 1, of a ventilation supplement that was previously approved on August 12, 2005. The revised page includes changes in the procedures and safety precautions for drilling an 8 1/2 inch diameter pilot hole down and through the Elk Run Coal Company's Castle Mine (I.D. No. 46-07009) and into Upper Big Branch Mine. Additionally, a 14 inch diameter borehole will subsequently be raise-bored from the Upper Big Branch Mine, up through the Castle Mine, and through a sealed portion of Elk Run Coal Company’s Black King I Mine in the Lower Cedar Grove seam.

The revision is hereby approved and will be made a part of the approved plan for this mine.

Should you have any questions concerning this matter, please contact William L. Ross at (304) 877-3900/Ext. 142.

Sincerely,

/\ William Ross

Jesse P. Cole
District Manager
Coal Mine Safety and Health, District 4

cc: Mt. Hope Field Office (3 encl.)
Files/dac
OCT 05 2005

Mr. Bill Potter  
President  
Performance Coal Company  
P. O. Box 69  
Naoma, WV 25140

Dear Mr. Potter:

Subject: Mine Ventilation Plan, Section 75.370, 30 CFR 75, Upper Big Branch Mine-South, I.D. No. 46-08436, Performance Coal Company, Montcoal, Raleigh County, West Virginia

This will acknowledge receipt of a revision to the ventilation plan, submitted to this office and dated October 4, 2005, which includes a revised Page 1, of a ventilation supplement that was previously approved on August 12, 2005. The revised page includes changes in the procedures and safety precautions for drilling an 8 ½ inch diameter pilot hole down and through the Elk Run Coal Company's Castle Mine (I.D. No. 46-07009) and into Upper Big Branch Mine. Additionally, a 14 inch diameter borehole will subsequently be raise-bored from the Upper Big Branch Mine, up through the Castle Mine, and through a sealed portion of Elk Run Coal Company's Black King I Mine in the Lower Cedar Grove seam.

The revision is hereby approved and will be made a part of the approved plan for this mine.

Should you have any questions concerning this matter, please contact William L. Ross at (304) 877-3900/Ext. 142.

Sincerely,

[Signature]

Jesse P. Cole  
District Manager  
Coal Mine Safety and Health, District 4
VENTILATION REVIEW

Company: Performance Coal Company

Mine: Upper Big Branch Mine - Shift ID#: 46-38436

Status: 10/5/05 DATE RECEIVED FROM COMPANY (by fax)
10/5/05 DATE APPROVED PLAN MAILED TO OPERATOR
0 TOTAL DAYS ELAPSED

REASON FOR PLAN AND ANNUAL MAP

☑ ADDENDUM
☐ TECHNICAL REVIEW

Description: Revised Page 1 of the revision approved 8/1/05, describing procedures & safety precautions to drill a 6½" dia. pilot hole into the UBB Mine & then raise-bore a 10" dia. hole from the UBB Mine up through the Castle Run.

Person Reviewing Plan: [Redacted] Date: 10/5/05

Comments: _______________________---------------------

Ventilation Supervisor: Bill Papp Date: 10-5-05

Comments: _______________________---------------------

Assistant District Manager: [Redacted] Date: 10/5/05

Comments: _______________________---------------------

Chief of Engineering Services: Bill Papp Date: 10-5-05

Comments: _______________________---------------------
Mr. Bill Potter
President
Performance Coal Company
P. O. Box 69
Naoma, WV 25140

Dear Mr. Potter:

Subject: Mine Ventilation Plan, Section 75.370, 30 CFR 75, Upper Big Branch Mine - South, I.D. No. 46-08436, Performance Coal Company, Montcoal, Raleigh County, West Virginia

This will acknowledge receipt of a revision to the ventilation plan, submitted to this office and dated October 4, 2005, that includes a revised Page 1, of a ventilation supplement that was previously approved on August 12, 2005. The revised page includes changes in the procedures and safety precautions for drilling an 8 1/2" diameter pilot hole down and through the Elk Run Coal Company's Castle Mine (I.D. 46-07009) and into Upper Big Branch Mine. Additionally, a 14" diameter borehole will subsequently be raise-bored from the Upper Big Branch Mine, up through the Castle Mine, and through a sealed portion of Elk Run Coal Company's Black King I Mine in the Lower Cedar Grove seam.

This revision is hereby approved and will be made a part of the approved plan for this mine.

Should you have any questions concerning this matter, please contact the Ventilation Department at (304) 877-3900/Ext. 142.

Sincerely,

Jesse P. Cole
District Manager
Coal Mine Safety and Health, District 4
October 4, 2005

Mr. Jesse Cole  
District Manager  
Mine Safety and Health Administration  
100 Bluestone Road  
Mount Hope, WV 25880

RE: Upper Big Branch Mine  
State ID – U-3042-92  
M.S.H.A. ID 46-08436  
Revised Ventilation Supplement for Coal Transfer Shaft

Dear Mr. Cole,

Enclosed please find a revised page 1 of a ventilation supplement. Our current approved plan states that the pilot hole will be cased off from all voids as it is drilled. We have cased the 1st 500 feet of the hole down through the abandoned Y&O mine in the Winifreda seam. When we drilled below the casing the pilot hole deviated from the required course. We then used a directional drilling company to steer an 8.5" hole back on course down into the floor of a sealed portion of our Black King I mine. When we attempted to ream this hole to 18" (which would allow casing to be run) the hole deviated off course in the same direction as the first. The drilling contractor believes that further attempts would result in similar deviations.

The attached plan shows directional drilling of an 8.5" hole on into the Upper Big Branch Mine. There the bit will be changed to 14". This will allow the pilot hole to be raise bored to the usable diameter. The attached plan shows that the Lower Cedar Grove seam was verified by camera for water and how air separation between the seams will be accomplished.

If you should need any additional information or have any further question please feel free to contact me at the above referenced phone number.

Sincerely,
Upper Big Branch Mine
MSHA ID 46-08436
STATE ID U-3042-92
Coal Transfer Shaft
Ventilation Supplement
Revised Page (10/4/2005)
Pilot Hole

1. The first 500 feet of the pilot hole will be steel cased.
2. An 8.5” directionally steered hole was drilled into the floor of the Black King I mine. A camera was lowered into the hole. The video verified that no impounded water exists at the location of the hole.
3. The pilot hole will drill into the Castle mine where mining has already occurred. Access to this area will be dangered off during drilling. Once drilling breaks through into the Castle mine preshift examinations will begin and continue through out the process.
4. The pilot hole will drill into the Eagle seam where mining has already occurred. Access to this area will be dangered off during drilling. Once drilling breaks through into the Upper Big Branch mine preshift examinations will begin and continue through out the process.
5. The 8.5” bit on the drill steel will be changed to a 14” reaming bit. This bit will be used to raisebore the 14” pilot hole up to the 18” steel casing (500 foot from the surface).
6. During all times either drill steel or a packer will exist in the hole between the Castle mine and the sealed area of the Black King I mine above. When it is necessary to install or remove a packer the area will be constantly monitored for direction and quality (methane and oxygen).
7. After reaming the pilot hole to 14” between the UBB mine and the Castle mine a cap with a valve for sampling will be installed over the pilot hole in the floor of the Castle mine. The 14” hole will proceed to be enlarged above the Castle mine. The hole can be enlarged untill it is 5 feet below the Black King mine floor. A packer will then be installed in the roof of the Castle mine. Then the hole can be enlarged the remainder of the distance.
8. The raise bore drill rig will be installed on the surface. Before the drill string for the raise bore is lowered through the Castle mine roof the packer will be removed. Checks will be made for direction and quality before the packer is removed. Before the drill string can be lowered below the Castle mine floor the cap separating the Castle and UBB mines will be removed. The air will be sampled before the cap is removed. Then the drill string will be extended down into the Upper Big Branch Mine. Air ventilating the area will be directed into the return.
9. The raise bore will then excavate the shaft between the 2 seams. See page 2 for raise bore details.
10. After the raise bore drill string has been removed above the Castle mine, but still extends down below the Lower Cedar Grove seam, a packer will be installed. The hole will then be grouted off above the Castle Mine.
PILOT HOLE  
10-5-05  
SKETCH - NOT TO SCALE

UBB MINE
MSHA ID 46-08936
STATE ID U-3042-92

CASTLE MINE
MSHA ID 46-02808
STATE ID D-11353

SURFACE

8.5" HOLE TO BE RAISED  
TO 14" FROM UBB MINE TO  
EXISTING 18" CASING

PLOTO MINE  
WINIFRED SEAM  
VOID

2-18" DIA. CASING 20'  
BELOW 800 MINE

Camera was lowered into  
mine to confirm no water  
BLACK MANSFIELD MINE  
SEALED AREA

8.5" HOLE CURRENTLY  
+120' BELOW BLACKSHAW  
8.5" HOLE TO BE DRILLED  
INTO UBB MINE  

PACKER  
TO BE INSTALLED  
ABOVE CASTLE  
WHEN DRILL STEEL  
NOT IN HOLE

144" HOLE TO BE UPEAMED  
CASTLE MINE

CAP TO BE INSTALLED IN  
FLOOR OF CASTLE WHEN  
STEEL NOT IN HOLE

UBB MINE
To: BILL ROSS

Fax: 854-3528
Phone: 854-1761

Re: Please Comment

Comments: PLEASE REVIEW UBB PILOT HOLE PLAN

AFTER WE FINALIZE AN IDENTICAL PLAN WILL BE SUBMITTED FOR THE CASTLE MINE
A SKETCH IS INCLUDED TO CLARIFY
March 17, 2006

Mr. Harry Linville  
Office of Miners' Health, Safety, and Training  
Region –3 Danville  
Lick Creek Professional Building  
Danville, WV 25053-7823

RE: Castle Mine  
State ID – D-11373  
M.S.H.A ID – 46-07009  
Ventilation Supplement for Coal Transfer Shaft

Dear Mr. Linville,

Attached please find our plan for the grouting off of the pilot hole, which was used to drill the Coal Transfer Shaft between Elk Run Coal Company’s Castle Mine and Performance Coal Company’s Upper Big Branch Mine.

If you should need any additional information or have any further questions please feel free to contact me.

Sincerely,

[Signature]  
APPROVED Mar. 20 2006  
Harry Linville
CASTLE MINE
P.O. SHA ID 46-07009
STATE ID D-1333

To be plugged no later before 3/15/2006.

CASTLE MINE
P.O. SHA ID 46-07009
STATE ID D-1333

SURFACE READED
ABOVE HOLE

DIRT FILL

SURFACE

GROUTED TO SURFACE

120 MINE
MINIFREDÉ SEAM

4½ 16½" NON-LINED HOLE

GROUT INSTALLED FROM
BRIDGE TO SURFACE

BLACK KING 1 MINE (LOWER CEDAR
SEALER AREA

BLACK KING 1 MINE (LOWER CEDAR
SEALER AREA

GROVE SEAM)

MINIMUM OF
2500# TIE CEMENT INSTALLED ABOVE
PACKER (UPTO LOWER CEDAR GROVE FLOOR

INFLATABLE PACK

CASTLE MINE
FOWELL POP. SEAM

GLORY HOLE
TRANSFER SHAFT
DOWN TO
H.B.B. MINE
MINERS’ HEALTH, SAFETY AND TRAINING
137 PEACH COURT, SUITE 2
DANVILLE, WEST VIRGINIA 25053

PHONE: (304) 369-7823  FAX: (304) 369-7826

FROM: [Name]
TO: [Name]
MESSAGE: Approval Request

PAGES: 3 PLUS COVER
Elk Run Coal Company, Inc.
P. O. Box 497
Slyvester, WV 25193

Re: UBB Glory Hole – Integrity of Cement Plug
Castle Mine – MSHS ID 46-07009 – State ID D-11373

Dear [Name]

In response to your request, we have reviewed the information provided, see enclosures, in addition to other pertinent data to ascertain the integrity of the 128’ cement plug and Baker packer in the well.

It is our understanding from review of the information provided that a Baker inflatable packer was set 128’ below the pavement of the Cedar Grove coal seam in a 16 3/4” hole at an elevation of 1065’. Then the 128’ interval, (elevation 1065’ to 1193’), from the Baker packer to the Cedar Grove pavement was filled with “RFC” (expanding) cement.

In the following discussion, in which we will elaborate on the capabilities of the Baker packer and cement to resist inflow of water from the mine workings. It will be obvious from the data presented the capabilities of the cement and packer exceed that necessary to provide a seal restricting water inflow.

If you have any questions, please give us a call.

Sincerely,

W. Thomas White
Petroleum Geologist
CPG #5016

WTW: wtw

Enclosures:
UBB Glory Hole.doc
UBB Glory Hole

MSHA ID 46-07709
State ID D-11373

General Comments

As described in the earlier paragraphs cement plugs are typically utilized to isolate and prevent future migration of gas from the reservoir formations. Our remarks and computations therefore are focused on the cement plugs which have been tested in laboratory conditions for compressive and shear bond strength.

Cement Plug – Compressive Strength

Cement, as it sets up, develops a certain compressive strength depending upon the specific constituents added to the cement blend used and the amount of time pumping has ceased. The cement blend RFC as provided by Schlumberger Field Services has a compressive strength of 1,200 psi after 24 hours or additionally 2,200 psi after 72 hours, (data provided by Schlumberger Field Services).

Cement Plug – Shear Bond Strength

Performance of shear bond strength specifications were documented in two publications, “Well Cementing”, by Erik Nelson, DS Schlumberger Field Services, 1990 and an SPE Monograph Series, “Cementing” by Dwight K. Smith, Halliburton Services, 1976. In “Cementing” laboratory tests of resin coated steel pipe had 2,400 psi cement shear bond strength. In “Well Cementing” testing determined shear bond strengths between pipe and cement ranged from 1,000 psi for standard cement to 1,800 psi for cement with bond-enhancing agents. Although these tests were conducted between cement and pipe, similar or greater shear bond strength is expected between cement and formation primarily due to the textured surface of the rock providing better bond adhesion.

Without actual shear strength data for cement to formation bond, calculations will be based on the lower standard cement specifications of 1000 psi. For this comparison the total bond shear pressure is equal to surface area of the plug in contact with the formation wall times 1000 psi. This figure must exceed the total force capable of being exerted against the plug’s exposed surface area by the reservoir pressure.

The 128’ plug in the 17.5” hole would have bond shear strength equal to 84,446,000 pounds of force, (17.5” x 3.14 x 1,536” x 1,000 psi).
Baker “Inflatable” Packer - Shear Bond Strength

Performance of shear bond strength specifications of the Baker “Inflatable” Packer were provided by Baker Oil Tool, Inc. The particular packer installed in the UBB Glory Hole is a 10 3/8” OD tool with a rated differential pressure of 2000 psi in a 16 3/4” hole. With a surface area of 220 cu. inches this equates to 440,000 psi of shear strength.

Summary

A Baker “Inflatable” Packer was set in the UBB Glory Hole and then cemented with 128' of fill-up on top of the packer in a 16.75” to 17.50” hole. A downhole video camera was run verifying 128' of fill-up to the pavement of the Cedar Grove coal seam. Computations based upon documented cement strength data and specifications of the Baker “Inflatable” Packer provide sufficient support to indicate the cement and packer capable of isolating fluid inflow.
## Service Contract Receipt

**SCHLUMBERGER TECHNOLOGY CORPORATION**

**Invoices Mailing Address:**
NEW RIVER ENERGY CORPORATION
315 70TH STREET, S.E.
CHARLESTON, WV
US

---

### Service Description: Cementing - Plug & Abandon

<table>
<thead>
<tr>
<th>Description</th>
<th>AFE</th>
<th>Rig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cementing - Plug &amp; Abandon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Field: ELK RUN

**Customer or Authorized Representative:** COMER, TIM

---

### Services:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>102870020</td>
<td>1</td>
<td>Liner/Sign Plug D-2000' 1st 4m</td>
<td></td>
<td>4,200.00</td>
</tr>
<tr>
<td>107120000</td>
<td>1</td>
<td>High Pressure Integral Swage, Rental, pe</td>
<td>201.50</td>
<td>201.50</td>
</tr>
<tr>
<td>10728001</td>
<td>2</td>
<td>Regulatory Conformance Charge</td>
<td>650.00</td>
<td>1,300.00</td>
</tr>
<tr>
<td>49100000</td>
<td>141</td>
<td>Service Chg Cement Mall Land All OW Fur</td>
<td>4.22</td>
<td>586.02</td>
</tr>
<tr>
<td>49102000</td>
<td>971</td>
<td>Transportation Cement Ton Mile</td>
<td>3.11</td>
<td>3,015.91</td>
</tr>
<tr>
<td>19200002</td>
<td>300</td>
<td>Mileage, All Other Equipment</td>
<td>8.26</td>
<td>2,484.00</td>
</tr>
</tbody>
</table>

**Services Subtotal:** 11,850.93

**Estimated Total (USD):** 6,771.21

### Products:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>10258000</td>
<td>1</td>
<td>Fuel Surcharge</td>
<td></td>
<td>355.51</td>
</tr>
<tr>
<td>D046</td>
<td>24</td>
<td>AntiFoam Agent, All Purpose D40</td>
<td>9.60</td>
<td>220.40</td>
</tr>
<tr>
<td>D053</td>
<td>1175</td>
<td>Cement Agent D53</td>
<td>1.29</td>
<td>1,515.75</td>
</tr>
<tr>
<td>D001</td>
<td>125</td>
<td>Cement, Class A D901</td>
<td>31.15</td>
<td>3,938.75</td>
</tr>
</tbody>
</table>

**Products Subtotal:** 6,995.41

**Estimated Total (USD):** 2,300.77

---

**Total (Before Discount):** 17,846.74

**Discount:** 8,963.75

**Estimated Total (USD):** 8,783.00

**Special Discount:** 0.00

---

**New River Energy Corporation**
315 70TH STREET, S.E.
CHARLESTON, WV
US
Service Contract Receipt

SCHLUMBERGER TECHNOLOGY CORPORATION

<table>
<thead>
<tr>
<th>Invoice Mailing Address:</th>
<th>NEW RIVER ENERGY CORPORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>315 70TH STREET, S.E.</td>
<td>CHARLESTON, WV</td>
</tr>
<tr>
<td>US</td>
<td></td>
</tr>
</tbody>
</table>

| Service Description     | Cementing - Plug & Abandon   |

| Well                    | UBB GLORY HOLE 05307         |
| State/Province          | WEST VIRGINIA                |
| County/Parish/Block     | BOONE                        |
| Legal Location          | ELK RUN                      |

| N/A                     |                               |

| Name                    | COMM. TIM                     |

Signature of Customer or Authorized Representative: 

Signature of Schlumberger Representative: 

Date: 3/15/00
# Cementing Service Report

**Well:** UBB GLORY HOLE 6607  
**Field:** ELK RUN  
**County:** ROONE  
**Operator:** W. VIRGINIA  
**Well Number:** 055079177

**Driller:** PETTITT  
**Cementing Crew:** Old  
**Service Line:** CEMENT PLUG  
**Job Type:** Plug & Abandon  
**Max. Allowed Tailing Pressure:** 600 psi  
**Max. Allowed Acid. Pressure:** 0 psi  
**Verified Connection:** 2 3/8" SWAGE

---

**CEMENTING**

**Cementing Date:** 2006-Mar-15  
**Start Time:** 17:00  
**End Time:** 20:30  
**Volume Type:** None  
**Volume Depth:**  
**Volume Type:** None  
**Volume Depth:**

---

**Date** | **Time** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** |
---|---|---|---|---|---|---|---|---|
2006-Mar-15 | 19:48 | 55 | 2.9 | 12.17 | 9.1 | 0 | 0 | 0 |
2006-Mar-15 | 19:48 | 73 | 5.3 | 12.17 | 4.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:48 | 73 | 4.3 | 12.58 | 6.2 | 0 | 0 | 0 |
2006-Mar-15 | 19:49 | 79 | 4.1 | 13.82 | 8.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:49 | 87 | 4.1 | 14.30 | 10.3 | 0 | 0 | 0 |
2006-Mar-15 | 16:50 | 87 | 4.1 | 14.41 | 12.4 | 0 | 0 | 0 |
2006-Mar-15 | 16:50 | 87 | 4.1 | 14.27 | 14.4 | 0 | 0 | 0 |
2006-Mar-15 | 16:51 | 87 | 4.2 | 13.97 | 18.5 | 0 | 0 | 0 |
2006-Mar-15 | 16:51 | 87 | 4.3 | 13.69 | 18.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:52 | 82 | 4.3 | 13.49 | 20.7 | 0 | 0 | 0 |
2006-Mar-15 | 19:52 | 82 | 4.2 | 13.54 | 22.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:53 | 82 | 3.9 | 13.02 | 24.9 | 0 | 0 | 0 |
2006-Mar-15 | 19:53 | 82 | 3.5 | 13.74 | 26.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:54 | 82 | 3.5 | 13.83 | 28.6 | 0 | 0 | 0 |
2006-Mar-15 | 19:54 | 87 | 3.5 | 13.73 | 30.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:55 | 87 | 3.6 | 13.02 | 32.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:55 | 87 | 3.8 | 13.57 | 33.8 | 0 | 0 | 0 |
2006-Mar-15 | 16:06 | 87 | 3.5 | 13.46 | 25.6 | 0 | 0 | 0 |
2006-Mar-15 | 19:56 | 87 | 3.5 | 13.83 | 37.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:57 | 87 | 3.5 | 13.77 | 39.1 | 0 | 0 | 0 |
2006-Mar-15 | 19:57 | 110 | 3.5 | 13.05 | 40.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:58 | 110 | 0.0 | 13.73 | 42.0 | 0 | 0 | 0 |

---

**CEMENT PLUG**

**Cementing Date:** 2006-Mar-15  
**Start Time:** 17:00  
**End Time:** 20:30  
**Volume Type:** None  
**Volume Depth:**  
**Volume Type:** None  
**Volume Depth:**

---

**Date** | **Time** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** | **Volume** |
---|---|---|---|---|---|---|---|---|
2006-Mar-15 | 18:48 | 55 | 2.9 | 12.17 | 3.7 | 0 | 0 | 0 |
2006-Mar-15 | 19:48 | 73 | 5.3 | 12.17 | 4.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:48 | 73 | 4.3 | 12.58 | 6.2 | 0 | 0 | 0 |
2006-Mar-15 | 19:49 | 79 | 4.1 | 13.82 | 8.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:49 | 87 | 4.1 | 14.30 | 10.3 | 0 | 0 | 0 |
2006-Mar-15 | 16:50 | 87 | 4.1 | 14.41 | 12.4 | 0 | 0 | 0 |
2006-Mar-15 | 16:50 | 87 | 4.1 | 14.27 | 14.4 | 0 | 0 | 0 |
2006-Mar-15 | 16:51 | 87 | 4.2 | 13.97 | 18.5 | 0 | 0 | 0 |
2006-Mar-15 | 16:51 | 87 | 4.3 | 13.69 | 18.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:52 | 82 | 4.3 | 13.49 | 20.7 | 0 | 0 | 0 |
2006-Mar-15 | 19:52 | 82 | 4.2 | 13.54 | 22.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:53 | 82 | 3.9 | 13.02 | 24.9 | 0 | 0 | 0 |
2006-Mar-15 | 19:53 | 82 | 3.5 | 13.74 | 26.8 | 0 | 0 | 0 |
2006-Mar-15 | 19:54 | 82 | 3.5 | 13.85 | 28.5 | 0 | 0 | 0 |
2006-Mar-15 | 19:54 | 87 | 3.5 | 13.73 | 30.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:55 | 87 | 3.6 | 13.02 | 32.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:55 | 87 | 3.8 | 13.57 | 33.8 | 0 | 0 | 0 |
2006-Mar-15 | 16:06 | 87 | 3.5 | 13.46 | 25.6 | 0 | 0 | 0 |
2006-Mar-15 | 19:56 | 87 | 3.5 | 13.83 | 37.3 | 0 | 0 | 0 |
2006-Mar-15 | 19:57 | 87 | 3.5 | 13.77 | 39.1 | 0 | 0 | 0 |
2006-Mar-15 | 19:57 | 110 | 3.5 | 13.05 | 40.0 | 0 | 0 | 0 |
2006-Mar-15 | 19:58 | 110 | 0.0 | 13.73 | 42.0 | 0 | 0 | 0 |

---

**Notes:**

**Date:** 03/20/2006 17:12  
**Fax No.:** 3043251048  
**Page 1 of 2**
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Volume</th>
<th>Rate</th>
<th>Minimum Rate</th>
<th>Maximum Rate</th>
<th>Total Injected Volume</th>
<th>Breakdown Fluid Volume</th>
<th>Breakdown Fluid Depth</th>
<th>Breakdown Fluid Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-Mar-15</td>
<td>19:55</td>
<td>64</td>
<td>4.0</td>
<td>0.94</td>
<td>44.8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>19:59</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>19:59</td>
<td>5</td>
<td>8.76</td>
<td>48.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:04</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:06</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:07</td>
<td>0</td>
<td>0.0</td>
<td>8.79</td>
<td>48.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Volume</th>
<th>Rate</th>
<th>Minimum Rate</th>
<th>Maximum Rate</th>
<th>Total Injected Volume</th>
<th>Breakdown Fluid Volume</th>
<th>Breakdown Fluid Depth</th>
<th>Breakdown Fluid Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-Mar-15</td>
<td>19:55</td>
<td>64</td>
<td>4.0</td>
<td>0.94</td>
<td>44.8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>19:59</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>19:59</td>
<td>5</td>
<td>8.76</td>
<td>48.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:04</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:05</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:06</td>
<td>0</td>
<td>0.0</td>
<td>6.66</td>
<td>48.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006-Mar-15</td>
<td>20:07</td>
<td>0</td>
<td>0.0</td>
<td>8.79</td>
<td>48.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Average Pump Rates:**
- 4 barrels per minute
- Maximum: 4 barrels per minute
- Total Volume Injected: 37 barrels

**Treated Pressure Summary:**
- Maximum: 135 psi
- Average: 35 psi
- Final: 10 psi

**Compressor Pressure:**
- Maximum: 35 psi
- Average: 10 psi
- Final: 0 psi

**Brine Details:**
- Designated Brine Volume: 35.6 barrels
- Brine Volume: 2 barrels

**Job Completed:**
- Circulation: Yes
- Job Completed: No

**Representatives:**
- Owner: Tim Comer
- Superintendent: Glenn Boyd
Mr. Jesse Cole  
District Manager  
Mine Safety and Health Administration  
100 Bluestone Road  
Mount Hope, WV 25880  

RE: Castle Mine  
State ID D-11373  
M.S.H.A. ID 46-07009  
Revised Ventilation Supplement for Coal Transfer Shaft  

Dear Mr. Cole,  

Enclosed please find a revised page 1 of a ventilation supplement. Our current approved plan states that the pilot hole will be cased off from all voids as it is drilled. We have cased the 1" 500 feet of the hole down through the abandoned Y&O mine in the Winifrede seam. When we drilled below the casing the pilot hole deviated from the required course. We then used a directional drilling company to steer an 8.5" hole back on course down into the floor of a sealed portion of our Black King I mine. When we attempted to ream this hole to 18" (which would allow casing to be run) the hole deviated off course in the same direction as the first. The drilling contractor believes that further attempts would result in similar deviations.  

The attached plan shows directional drilling of an 8.5" hole on into the Upper Big Branch Mine. There the bit will be changed to 14". This will allow the pilot hole to be raise bored to the usable diameter. The attached plan shows that the Lower Cedar Grove seam was verified by camera for water and how air separation between the seams will be accomplished.  

If you should need any additional information or have any further question please feel free to contact me at the above referenced phone number.  

Sincerely,
1. The first 500 feet of the pilot hole will be steel cased.
2. An 8.5" directionally steered hole was drilled into the floor of the Black King I mine. A camera was lowered into the hole. The video verified that no impounded water exists at the location of the hole.
3. The pilot hole will drill into the Castle mine where mining has already occurred. Access to this area will be dangered off during drilling. Once drilling breaks through into the Castle mine preshift examinations will begin and continue through out the process.
4. The pilot hole will drill into the Eagle seam where mining has already occurred. Access to this area will be dangered off during drilling. Once drilling breaks through into the Upper Big Branch mine preshift examinations will begin and continue through out the process.
5. The 8.5" bit on the drill steel will be changed to a 14" reaming bit. This bit will be used to raise bore the 14" pilot hole up to the 18" steel casing (500 foot from the surface).
6. During all times either drill steel or a packer will exist in the hole between the Castle mine and the sealed area of the Black King I mine above. When it is necessary to install or remove a packer the area will be constantly monitored for direction and quality (methane and oxygen).
7. After reaming the pilot hole to 14" between the UBB mine and the Castle mine a cap with a valve for sampling will be installed over the pilot hole in the floor of the Castle mine. The 14" hole will proceed to be enlarged above the Castle mine. The hole can be enlarged until it is 5 feet below the Black King mine floor. A packer will then be installed in the roof of the Castle mine. Then the hole can be enlarged the remainder of the distance.
8. The raise bore drill rig will be installed on the surface. Before the drill string for the raise bore is lowered through the Castle mine roof the packer will be removed. Checks will be made for direction and quality before the packer is removed. Before the drill string can be lowered below the Castle mine floor the cap separating the Castle and UBB mines will be removed. The air will be sampled before the cap is removed. Then the drill string will be extended down into the Upper Big Branch Mine. Air ventilating the area will be directed into the return.
9. The raise bore will then excavate the shaft between the 2 seams. See page 2 for raise bore details.
10. After the raise bore drill string has been removed above the Castle mine, but still extends down below the Lower Cedar Grove seam, a packer will be installed. The hole will then be grouted off above the Castle Mine.
CASTLE MINE (MSHA ID 46-07009)
VENTILATION SUPPLEMENT
COAL TRANSFER SHAFT (GLORY HOLE)

The shaft will be drilled between the Glory Hole Mains section of the Castle Mine (MSHA ID 46-07009, State ID D-11373) and the North Mains section of the Upper Big Branch Mine (MSHA ID 46-08436, State ID U-3042-92). The Upper Big Branch Mine is +/-180 feet below the Castle Mine.

Shaft Construction will be performed by Frontier Kemper who will submit their required plans to your office.

The cuttings from the shaft will be removed by Performance Coal Company personnel and approved contractors. The cuttings will be removed by underground equipment and placed in crosscuts and/or transported to the surface by conveyor belt. The attached map shows the proposed ventilation for the area. Below are safety precautions that will be followed.

1. **Permanent roof at the top of the shaft** will be supported in accordance with the approved roof control plan. During no time will employees be subjected to unsupported roof or to hazards of falling material (rocks). During drilling access to the area where the drilling will occur will be dangered off.

2. **During the boring operation ventilation in the shaft** will be provided by Frontier Kemper. The Raise Drill machine will draw air up the shaft and through the drill pipe with a vacuum blower.

3. **Communications between the surface and the top of the shaft** will comprise of utilizing mine phones to communicate to the responsible person on the surface of the mine who will communicate with the drill operator by 2 way radio.

4. **Drill cuttings will not be allowed to accumulate at the bottom of the shaft** to the extent that air is blocked coming up the shaft.

5. **Prior to drilling the shaft through into the Castle Mine** controls will be built boxing in the area at the top of the shaft. Doors and regulators will be installed for access and ventilation. Ventilation will then be checked for direction, quantity, and quality before any other work is performed.

6. **The remainder of the shaft will then be drilled through to the Castle mine.** Ventilation will then be checked for direction, quantity, and quality before any other work is performed. The top of the shaft will then be capped in the Castle. The cap will be equipped with openings to ventilate the shaft. Air will flow from the Castle mine down the shaft and directly into the return in the Upper Big Branch mine. An auxiliary fan will be installed if necessary to ventilate the shaft. The fan will run continuously until completion of the project. 9,000 cfm will be maintained down the shaft, if not work will cease. Work toward correcting the problem will begin immediately and continue until 9,000 cfm has been restored. The cap will be examined on 20 minute intervals for the Upper Big Branch mine when construction is being performed in the Upper Big Branch mine. The cap will be kept in place until coal has filled the bin high enough to prevent air exchange. The bin will be kept at a level that will prevent airflow between the 2 mines.
REPORT OF HEALTH & SAFETY CONFERENCE

Held: May 16, 2006
Time: 1:00 p.m.
Type: in Person
ID: 46-08436
Company: Performance Coal Company
Mine: Upper Big Branch Mine - South

Attending for MSHA: Dana Hosch, Conference Officer
Attending for Operator: Greg Pernett, Asst. Safety Director
Attending for Miners' Rep.: None

All parties have been advised of their H&S Conference Right.

104(d)(1) Citation No. 7250745-S&S-75.370(a)(1) - Special Assessment
Requested - The operator contested the validity and gravity of this citation. Pernett stated that he believed proper procedures were followed during the drilling of the pilot hole for the raised bore shaft. Frontier-Kemper, the contracting company that drilled the holes, did scope the hole and concluded that no danger from outburst of water existed. Engineers from Performance used this information to establish priorities as to when they would install the packer.

MSHA Inspector Moore’s notes indicate that information gathered during a mine inundation of water accident revealed that proper procedures were not followed during the drilling of a pilot hole for a raised bore shaft. Afterwards, an incident occurred and approximately 5 million gallons of water inundated the mine. It was determined that the water came from an abandoned mine above.

The plan clearly calls for the installation of a packer above the Castle mine. Only a make-shift packer was ever installed. The mine had been cited previously by MSHA during construction for failing to install a packer above the Black King I Mine. Contemporaneous statements by management indicated that they just failed to get around to installing the packer. This indicated that the violation was known by management for several months prior to issuance and prior to the inundation.

The Conference Officer finds that this citation is sustained as issued. High Negligence and Special Assessment are warranted because little care was exercised by management towards installing the required packer. In addition, management was involved in the existence of the violation, knew of the plan requirement and had been cited previously for the exact violation.

*Note: The violation of 77.1900-1 on 12/07/2005 issued by Inspector Pink 7244340 was cited during shaft construction. The ventilation plan approved

# Citations/Orders Discussed: 1
# S & S: 1
# Special Assessment: 1

# Modified: 0
Gravity: 0
Negligence: 0
S & S: 0
Special Assessment: 0

# Vacated: 0

*** MSHA INTERNAL WORK PRODUCT - NOT TO BE RELEASED BY FOIA ***
May 16, 2006
Performance Coal Company
Upper Big Branch Mine - South
46-08436

on 10/05/2005 incorporated the shaft sinking plan and is the correct regulation 75.370(a)(1) to cite this violation.