## West Virginia Office of Miners' Health, Safety and Training

October 11, 2010

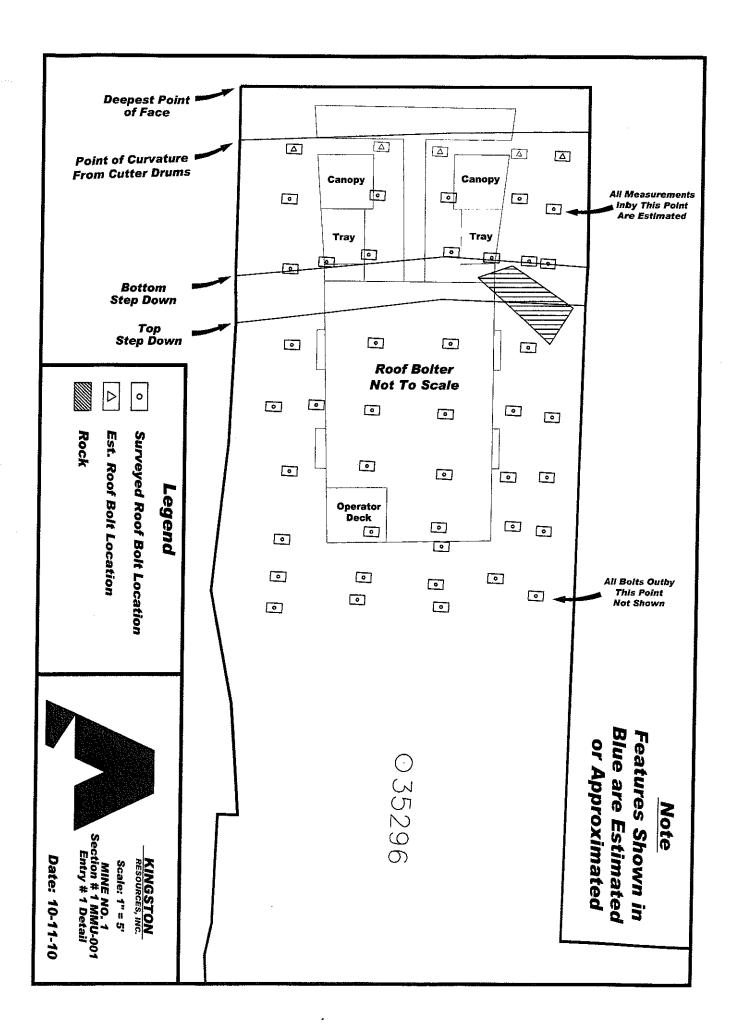
Report of Investigation Underground Coal Mine Fatality (Roof Fall)

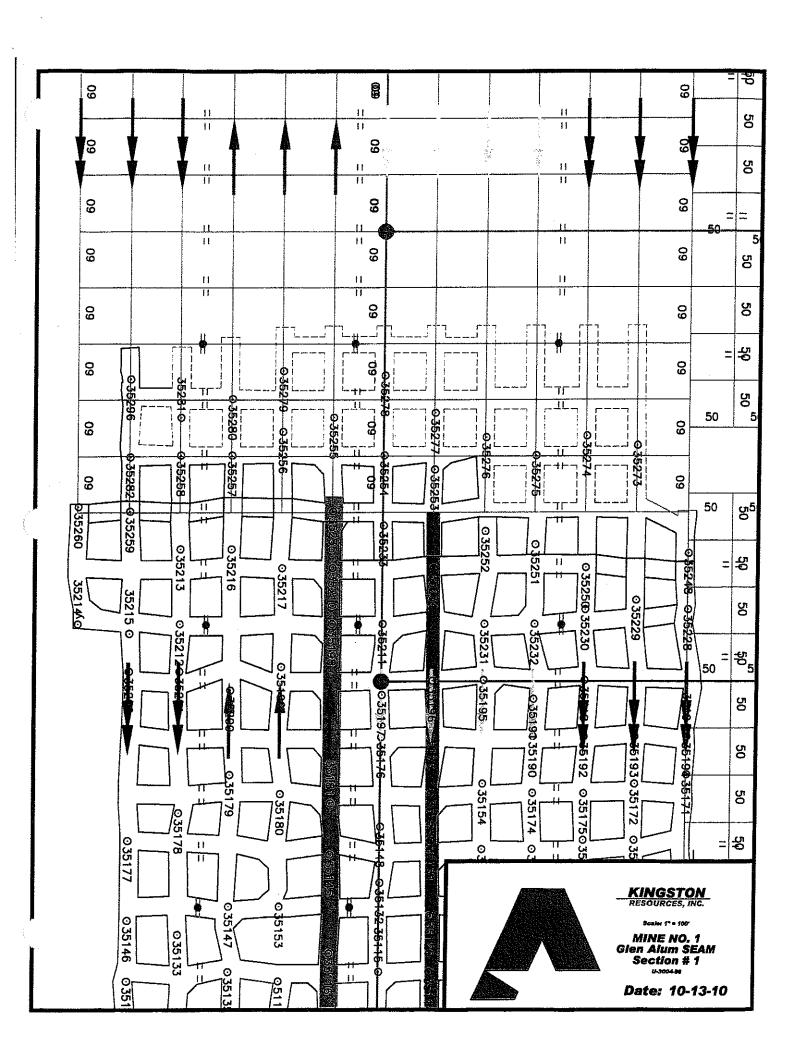
Kingston Mining, Inc. Kingston #1 Mine Permit Number U00300496

Region IV Office 550 Industrial Drive Oak Hill, West Virginia 25901 McKennis P. Browning, Inspector-at-Large

### TABLE OF CONTENTS

SKETCHES.	1 - 2
GENERAL INFORMATION	3
DESCRIPTION	
FINDINGS OF FACT	5
CONCLUSION	5
ENFORCEMENT ACTION	5 - 8
RECOMMENDATIONS	8
ACKNOWLEDGMENT	9
APPENDIX	10





# Report of Investigation Underground Coal Mine Fatality Kingston Mining, Inc. Kingston #1 Mine, Permit Number U00300496

#### **GENERAL INFORMATION**

This report is based on an investigation conducted in accordance with Chapter 22A, Article 1, Section 14 of the mining laws of the State of West Virginia.

William Roger Dooley, an employee of Kingston Mining, Inc., was fatally injured in an accident which occurred at approximately 10:30 a.m., on October 11, 2010. Mr. Dooley was working as a Roof Bolter Operator (right side) on the No. 1 working section when he was struck with a piece of falling mine roof.

The Fayette County 911 Emergency Service was notified of the accident at 10:30 a.m. and the Mine and Industrial Accident Emergency Operations Center was notified of the accident at 10:51 a.m. by Greg Fernett, Safety Director of Kingston Mining, Inc., Kingston #1 Mine. The West Virginia Office of Miners' Health, Safety and Training was notified of the accident by the Mine and Industrial Accident Emergency Operations Center at 11:00 a.m. A joint investigation with the Mine Safety and Health Administration was started immediately.

#### **DESCRIPTION**

The Kingston Mining, Inc., Kingston #1 Mine is located on Resource Drive near Mossy, West Virginia in Fayette County. This underground mine has four (4) working sections mining in the Glen Alum coal seam. This coal seam is approximately 50 to 55 inches in height. The mine is staffed by 92 employees and operates five (5) days a week and every other Saturday. The day and evening shift are primarily coal producing shifts. Maintenance activities, section belt installations, and power moves, etc., are routinely performed on the midnight shift.

On October 11, 2010, thirteen employees of the Kingston No.1 Mine entered the No. 3 mine portal at approximately 6:30 a.m. and traveled to the No. 1 section. Upon arrival, the Section Foreman, Larry Helmick, examined the ten (10) working faces of the section before the crew began their work activities for the day.

Carlton Martin, continuous miner operator, started production in the No.1 working face. A cut approximately 15 feet in length and 19½ feet in width had been mined in this entry

on the last production shift of the previous week. During the interim period over the weekend a roof fall occurred in this entry. The material from this roof fall measured approximately two (2) feet in depth and covered the entire length and width of this cut. Mr. Martin used the continuous miner to remove the roof fall material and extracted an additional ten (10) linear feet of coal from the entry face, making a total linear cut length of approximately 25 feet. The height of the cut affected by the roof fall that occurred over the weekend was approximately eight (8) feet and eight (8) inches and the height of the cut mined by Mr. Martin was approximately six (6) feet. A vertical height difference of approximately 32 inches existed in the mine roof between the area of the cut which was affected by the roof fall and the area of the cut that was mined by Mr. Martin. This abrupt difference in height created a vertical step in the mine roof.

Allen Shrewsbury and William Dooley, both roof bolting machine operators, moved the roof bolting machine to the #1 entry and began installing roof bolts. During the roof bolting cycle Chad Kennedy, battery scoop operator, arrived at the roof bolting machine and was asked to retrieve some longer roof bolt wrenches from the roof bolting machine located on the right side of the section. When Mr. Kennedy arrived back at the No. 1 entry with the extra wrenches he noticed that the roof bolting cycle had already been completed in this face. Mr. Kennedy gave both wrenches to Mr. Dooley who, in turn, handed one of the wrenches to Mr. Shrewsbury.

Mr. Dooley took his wrench to the side of the roof bolter that he normally operated (right side) and put it in the wrench tray at this time. A piece of mine roof, 71¼ inches long, by 38 inches wide, by 0.7 inches thick, suddenly fell from the vertical step area in the roof, striking Mr. Dooley and pushing him to the mine floor. Mr. Kennedy ran up to the area where the rock fell yelling the victim's name. Mr. Kennedy stepped over the rock and saw the victim. He then turned and called out for additional help. Mr. Shrewbury left his side of the bolting machine and went to Mr. Dooley's aid. At this time, the Section Foreman, Larry Helmick, arrived on the scene. Mr. Helmick directed the left side Miner Operator, Carlton Martin, to go to the telephone and call outside to request an ambulance. Other fellow workers, Mr. Shrewsbury, Mr. Kennedy, Mr. Cox, Mr. Lilly and Mr. Clay, helped administer first aid and load the victim on the MAC 8 rubber tired vehicle. Mr. Dooley was then transported to the end of the track and taken to the surface via a rail mounted personnel carrier.

Upon arrival at the surface, the victim was transferred to a waiting ambulance. Mr. Dooley was then transported to the Raleigh General Hospital, where he was pronounced dead at 12:05 p.m.

#### FINDINGS OF FACT

- 1. William Roger Dooley was working as a Roof Bolting Machine Operator on the No. 1 section.
- 2. Allen Shrewsbury and Mr. Dooley had just completed the roof bolting cycle in the No. 1 entry face.
- 3. The seam thickness at this mine is approximately 28 inches. The overall height in the area of the accident was approximately 6 to 8½ feet.
- 4. The mine roof in the #1 entry, where the fatality occurred, consisted of a vertical step approximately 38 inches thick due to adverse roof conditions. The accident was caused by a piece of rock falling from the vertical step area of the mine roof.

#### CONCLUSION

Mr. William Roger Dooley was fatally injured when he was struck by a piece of rock that fell from the vertical step area of the mine roof.

#### **ENFORCEMENT ACTION**

A non-assessed control order was issued in accordance with Title 36, Series 19, Section 7 of the West Virginia Mining Laws in order to preserve the scene of the accident and to complete an investigation.

The WV Office of Miners' Health, Safety and Training issued thirteen notices of violation during this investigation. The following notices of violation were issued to Kingston Mining, Inc., Kingston #1 Mine.

Notice of Violation: Chapter 22A, Article 2, Section 25(A):

The approved roof control plan is not being complied with on the No.1 section in that roof bolt spacing between the 3<sup>rd</sup> and 4<sup>th</sup> rows outby the face of No. 1 entry, inby spad No. 35296, has three (3) of the four (4) bolts spaced lengthwise 56½ inches to 59 inches apart. The roof control plan only allows no more than 48 inches spacing lengthwise. A fatal accident has occurred to a roof bolting machine operator due to a large piece of draw rock falling out between these two rows of bolts.

Notice of Violation: Chapter 22A, Article 2, Section 4 (A):

The No. 2 face area of the No. 1 section is not being adequately ventilated in that the blades on an approved anemometer would not turn when taking an air reading. No CH4 detected in face area. Note: Violation was first observed on 10-11-10 at 6:45 p.m., during the investigation of fatality on this section.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. 3 face area of the No. 1 section is not being adequately ventilated in that the blades on an approved anemometer would not turn when taking an air reading. No CH4 detected in face area. Note: Violation was first observed on 10-11-10 at 6:53 p.m., during the investigation of fatality on this section.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. 4 face area of the No. 1 section is not being adequately ventilated in that the blades on an approved anemometer would not turn when taking an air reading. No CH4 detected in face area. Note: Violation was first observed on 10-11-10 at 6:55 p.m., during the investigation of fatality on this section.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. five (5) face area of the No. 1 section is not being adequately ventilated in that the blades on an approved anemometer would not turn when taking an air reading. No CH4 detected in the face area. Note: Violation was first observed on 10-11-10 at 7:00 p.m., during the investigation of fatality on this section.

Notice of Violation: Title 36, Series 43, Section 3.16(A):

This article of law and the methane and dust control plan - page 10, is not being complied with, in that the face area of the No. 6 entry is being improperly mined in that the B-side run of the entry has been mined before the A-run side has been started. Note: The B-run side is cut 42'8" in depth.

Notice of Violation: Title 36, Series 10, Section 3.1:

This article of law and the approved roof control plan Page 10, Paragraph 2, is not being complied with in that the face area of the no. 6 entry, the B-run side of this cut has been driven from the last row of undamaged roof bolts (42'8" to the face) creating a deeper cut than the plan will allow. The section has center driven shuttle cars with canopies which

are only allowed 36' extended cuts. Note: to abate this violation a safety meeting will be conducted with all crew members on this section pertaining to West Virginia State Mining Law 36-1-3.1 with a signed copy given to West Virginia District Mine Inspector.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. 9 working face on the active working section is not being ventilated with the required 3,000 cfm of air. No air movement could be measured at the end of the line curtain with a Taylor anemometer. Note: Violation was first observed on 10-11-10 at 6:45 p.m., during the investigation of fatality on this section.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The #10 working face on the active working section is not being ventilated with the required 3,000 cfm of air. No air movement could be measured at the end of the line curtain with a Taylor anemometer.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. 11 working face of the active working section is not being ventilated with the required 3,000 cfm of air. No air movement could be measured at the end of the line curtain with a Taylor anemometer. Note: This violation was first observed on 10-11-10, at 7:35 p.m., during an investigation of a fatality on this section.

Notice of Violation: Chapter 22A, Article 2, Section 4(A):

The No. 7 working face on the active working section is not being ventilated with the required 3,000 cfm of air. When examined, it was observed that the line curtain was torn down across the mouth of the No. 7 to No. 8 crosscut, which allows the air to short-circuit through the crosscut away from the face.

Notice of violation: Chapter 22A, Article 2, Section 24(A):

Adequate clean up/scooping and rock dusting methods are not being practiced on the active working section, inby the section feeder from No. 1 entry to the No. 11 entry. Various locations need cleaned of coal accumulations along the ribs and in the roadways, up to 6 inches deep. Also additional rock dust must be applied to the mine roof and ribs in these same various locations taking into consideration that rock dust shall be maintained in such quantity that the incombustible content in these entries is not less than 80% (ex. Order No. 1-10).

Notice of Violation: Chapter 22A, Section 4(A):

The No. 8 working face on the active working section is not being ventilated with the required 3,000 cfm of air. No air movement could be measured at the end of the line curtain with a Taylor anemometer. Note: This violation was first observed on 10-11-10, at 7:18 p.m., during an investigation of a fatality on this section.

#### RECOMMENDATIONS

In accordance with Chapter 22(A), Article 2, Section 25 of the West Virginia Mining Laws, the Roof Control Plan for the Kingston Mining, Inc., Kingston No.1 Mine shall be revised to include the follow safety precautions:

- 1. When mining in face areas and abrupt vertical steps greater than twelve (12) inches occur in the mine roof, due to geological conditions or when reducing the mining height, the mine roof will be sloped or tapered from the upper horizon to the lower horizon to facilitate roof bolt installation in these areas.
- 2. In the event the areas defined in safety precaution No. 20 above can't be sloped or tapered and a vertical step of twelve (12) inches or greater exists, the vertical step shall be supported by installing mesh, wire screening, or straps that properly support the vertical step from the upper horizon to the lower horizon for the first row of bolts installed in the lower horizon. Roof bolts in the lower horizon shall be a suitable length to anchor at least two feet into the upper horizon for the first two rows of roof bolts installed in the lower horizon. In the event the mining height is too low for the primary supports being installed to anchor two (2) feet into the upper horizon, one row of cable bolts (4 per row) can be installed on cycle after each of the first two (2) rows of permanent roof bolts of normal length have been installed in the lower horizon.
- 3. Mine roof exposed as a result of the mining cycle shall not be allowed to remain unsupported for more than 24 hours. The only exceptions will be in the event of uncontrollable circumstances such as power outages, inoperable ventilating fan(s), etc.

#### **ACKNOWLEDGMENT**

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the employees and management of Kingston Mining, Inc., Kingston No.1 Mine and the Mine Safety and Health Administration during this investigation.

## APPENDIX

•	Mine Information Sheet	Page	11
•	Victim Information Sheet	Page	12

## MINE INFORMATION

COMPANY Kingston Mining, Inc.
MINE NAME Glen Alum Kingston No.1 Mine
WV PERMIT <u>U-3004-96</u>
ADDRESS Rt. 1 Box 76-C, Scarbro, WV 25917
COUNTY Fayette
DATE PERMIT ISSUED March 2, 2010
LOCATION Near Kingston, WV
UNIONNON-UNION Yes
DAILY PRODUCTION 8,000 tons raw
ANNUAL PRODUCTION TO DATE 462,014
TOTAL EMPLOYEES 92 NUMBER OF SHIFTS 3
NAME OF COAL BED Glen Alum
SEAM THICKNESS 28 inches
ACCIDENT INCIDENT RATE 1.92 LOST TIME ACCIDENTS .96
ΓΥΡΕ OF HAULAGE conveyor belt and shuttle car
WV OMHST INSPECTOR Larry Wine
DATE OF LAST INSPECTION September 30, 2010
NOTIFIED BY Greg Fernett
ΓΙΜΕ OF NOTIFICATION10:50 a.m. on October 11, 2010
CMSP – ANNIVERSARY DATE <u>February 11, 2010</u>
CMSP – CONTACT PERSON Mike Jiles