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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Fall of Roof Accident
October 11, 2010

Kingston No. 1
Kingston Mining, Inc.
Scarbro, Fayette County, West Virginia
ID No. 46-08625

Accident Investigator

Thomas Clark
Coal Mine Safety and Health Inspector/Accident Investigator

Originating Office
Mine Safety and Health Administration
District 4
100 Bluestone Road, Mount Hope, West Virginia 25880
Charles E. Carpenter, District Manager

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OVERVIEW

At approximately 10:30 a.m., on Monday, October 11, 2010, a 56-year old roof bolting machine operator, with 31 years of mining experience, was killed at Kingston No. 1 mine, ID No. 46-08625, Kingston Mining, Inc. William R. Dooley (victim) received fatal injuries from a roof fall in the face area of the No. 1 entry of the No. 1 working section.

GENERAL INFORMATION

Kingston Mining, Inc. is owned by its parent company Alpha Natural Resources, Inc. The mine is located near Scarbro, Fayette County, West Virginia.

At the time of the accident, the mining operation employed 76 underground miners and 6 surface employees. The mine has five drift openings and operates in the Glen Alum coal seam, which averages about 28 inches in thickness. At the time of the accident, the working section was approximately 12,000 feet from the surface drifts. The mine produces an average of 8,000 tons per day, with two production shifts and one maintenance shift per 24 hour period.

The immediate mine roof consists of shale. The approved roof control plan specifies installation of 42-inch, fully grouted resin roof bolts at a minimum separation of four feet lengthwise and five feet crosswise spacing, with outside rows a maximum of four feet from ribs. No methane liberation has been measured at this mine.

A Mine Safety and Health Administration (MSHA) inspection was not in progress at the time of the accident.

The principal officers for Kingston Mining, Inc. at the time of the accident were:

Philip K. Saunders .....President
Mike Jiles .....Superintendent
Greg Fernett .....Safety Director

The principal officers for Alpha Natural Resources, Inc. at the time of the accident were:

Mark Schuerger ..... President-Northern West Virginia
John Gallick..... Vice President of Safety -Northern West Virginia
Ken Perdue.....Safety Director
Mike Vaught .....Safety Director -Northern West Virginia

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on September 30, 2010. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2010 was 1.41, compared to a National NFDL rate of 3.57 for underground mines.

DESCRIPTION OF ACCIDENT

The pre-shift examination for the No. 1 working section, for the day shift production crew, was conducted by the midnight shift on Monday morning, October 11, 2010. The record indicated that the No. 1 and No. 11 entries had partial cuts remaining, Nos. 2, 3, and 10 entries needed cleaning and dusting, and no hazards were reported in entries 4 through 9. The report was phoned outside to the day shift section foreman, Larry Helmick, by the pre-shift examiner, Tommy Adkins, at 5:15 a.m. The examination was conducted between 4:00 a.m. and 4:45 a.m.

The crew entered the mine through the drift openings and traveled by rail-mounted runners to an area outby the section and traveled the remainder on MAC 8 rubber-tired vehicles. On the section, Helmick conducted an examination for imminent dangers prior to producing coal. The men went to their respective equipment while waiting for Helmick to complete his examination.

The left continuous mining machine was in the No. 1 entry with a partial cut (cleanup) remaining. The right continuous mining machine was in the No. 11 entry with a partial cut remaining. The left roof bolt machine was parked in the No. 2 entry and the right roof bolt machine was in No. 10 entry.

The left continuous mining machine was in the No. 1 entry. The plan was for the crew to extract an additional 10 feet out of the No. 1 face. The No. 1 entry was

mined on the previous Friday during the evening shift when a 15-foot cut (lift) had been mined. The day shift crew encountered draw rock that had fallen in the original 15 foot lift due to the area not being supported and left standing over the weekend. Once the additional 10 feet of coal was extracted from the No. 1 face, a brow was created that measured 15 feet into the cut and the height of the cut went from approximately 8 feet to 6 feet high in a distance of less than 5 feet.

After completing the cut in No. 1, the left roof bolting machine, operated by Allen Shrewsberry and William Dooley, moved to the No. 1 face and supported the roof with bolts. At the beginning of the cut, the roof bolting machine operators asked Chad Kennedy, scoop operator, to retrieve the longer wrenches from the other roof bolting machine. The roof bolt operators felt that the longer wrenches would make it easier to install and tighten the roof supports in higher roof conditions.

When the bolting of the No. 1 entry was complete, the roof bolter remained in the No. 1 entry. Shrewsberry and Dooley were at the back end of the roof bolting machine waiting on the continuous mining machine operators to complete their cut cycle in the number 3 entry. After the place was bolted, Kennedy came over with the wrenches they had requested and handed them to Dooley. Dooley gave one to Shrewsberry and went around on the off side, (his control station side), and leaned over to place the wrench in the steel tray when a vertical section of rock brow fell, striking him and knocking him to the mine floor. The rock measured 30 inches high, by 66 inches long and was 4 to 7 inches thick. The accident occurred at 10:30 a.m.

Chad Kennedy, Scoop Operator, saw the rock hit Dooley, ran to the accident scene near the No. 1 face, and yelled for assistance. Helmick was hanging site rods outby, in the No. 1 entry at the last set of survey spads, heard the yell for help and immediately went to the bolting machine. Helmick, Kennedy, and Shrewsberry, tried to free Dooley from the rock. The curved section of rock had remained intact with the top lodged on the roof bolting machine and the bottom edge on the mine floor. The victim was under the arched section of rock and his foot was caught underneath the edge of the rock, preventing a quick extrication.

Carlton "Doc" Martin, Left Mining Machine Operator, had finished in the No. 3 entry and walked over to No. 1 entry to see if the bolting machine was finished when he realized that an accident had occurred. Helmick instructed Martin to call outside and report the accident and get an ambulance en-route. Martin contacted the outside man, David Franco, and explained there had been an accident and that they needed an ambulance.

Martin then alerted the rest of the crew that help was needed in the No. 1 entry and that a rock had fallen on Dooley. Chris Kamet, Shuttle Car Operator and EMT, went to the first-aid supply area and secured first-aid material, blankets, and a stretcher. He went to the accident site and began administering first aid with other crew members. Rescuers freed Dooley after chipping and removing the rock from around his foot, and using jacks and a pry bar to lift the rock. The crew placed Dooley on a

stretcher, administered oxygen, and transported him via rubber-tired vehicle to the end of the track. At that point, the victim was placed on the rail runner and transported to the surface. An ambulance was waiting and transported Dooley to Raleigh General Hospital in Beckley, West Virginia. Dooley was pronounced dead at 12:05 p.m.

INVESTIGATION OF ACCIDENT

The Mine Safety and Health Administration (MSHA), was notified of the accident at approximately 10:37 a.m., on Monday, October 11, 2010, when Gregg Fernett, Safety Director for Kingston Mining, contacted the MSHA Hotline Call Center. The Call Center notified Luther Marrs, Assistant District Manager, Inspection Division 2. MSHA personnel from the Mount Hope Field Office were immediately dispatched to the mine. A verbal Order was issued by phone. A 103(k) Order was issued upon arrival at the mine, to insure the safety of all persons during the accident investigation.

The investigation was conducted in cooperation with the West Virginia Office of Miners' Health, Safety, and Training (WVOMHST), with the assistance of the operator and their employees. Persons with knowledge of the accident, and those that participated during the investigation, are listed in Appendix A of this report.

Representatives of MSHA, the WVOMHST, and company officials, traveled underground to the accident site. Photographs, sketches, and relevant measurements were taken at the accident site. Formal interviews were conducted on October 12, 2010 at the office of Alpha Natural Resources in Beckley, WV.

DISCUSSION

Accident Scene

The accident occurred in the No. 1 entry, inby Survey Spad No. 35282, on the 001-MMU working section. Dimensions in the area of the accident measured 8 feet, 8 inches in height in the center of the cut, tapering down in the face area to a height of 6 feet. The width of the entry was 19 feet, 6 inches at the center of the cut. The roof bolting machine had a 60-inch walkway on the side where the rock fell.

The initial 15 foot portion of the cut was mined during the evening shift on Friday, October 8, 2010. Draw rock fell in the cut over the weekend, leaving a height of 8 feet, 8 inches in the center. The continuation of the cut included cleaning up the draw rock and extracting an additional 10 feet. In mining the last 10 feet of the cut, the return to normal seam height created a brow across the entry (See Sketches of Accident Scene in Appendix E).

Equipment

The machine at the accident scene was a Fletcher RR 2-13 Roof Bolter, company number 1, Serial No. 2006320. No safety issues were found when this machine was inspected.

Roof Control Plan

Roof conditions in the No. 1 entry were caused by a difference in mining height, resulting from a fall of draw rock and then a return to normal mining height. The difference in the mining height produced an area of transition resulting in a vertical rock face 30 inches in height.

The resulting accident occurred because the operator failed to identify hazards created by mining an extended cut in adverse roof conditions and improperly supported the roof in an area that contained adverse roof. Three roof bolts were spaced wide due to the angle of the brow, measuring distances from 56 ½ inches wide, to 58 inches wide.

Examination

The preshift report was conducted and called outside to Larry Helmick by the pre-shift examiner, Tommy Adkins, at 5:15 a.m. on the morning of the accident. Adkins reported that the No. 1 entry contained some draw rock on the mine floor and a partial cut of coal remained in the working place. Adkins did not report any additional hazardous conditions.

Geology

The immediate roof was a sandy shale composition, while the main roof was sandstone. No previous roof falls had been reported on the section. Including the fall of the brow in this report, there have been eight reportable roof falls in the history of this mine since 1998.

Training

William Dooley's training records were examined and found to be up to date, with no discrepancies. Additionally, Rod Shabbick, Training Specialist for MSHA Educational Field Services (EFS), examined the company's other training records and found no deficiencies.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. During the analysis, root causes were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are root causes identified during the analysis and their corresponding corrective actions implemented to prevent a recurrence of the accident:

1. *Root Cause*: Management oversight of adverse roof conditions was not adequate. A change in mining height created a brow at the location of the fatal accident. Roof bolt spacing was too wide at the area of the brow and adequate supplemental supports were not installed.

   Corrective Actions: Strapping, screening, and additional roof bolts were installed in the affected area. Requirements for the installation of straps, screening, and additional roof bolts, when adverse roof conditions are encountered, was included in a revision to the mine operator's Approved Roof Control Plan. The operator also upgraded the roof control plan to require that all cuts be roof bolted within 24 hours.

2. *Root Cause:* The Approved Roof Control Plan was not complied with in that management failed to evaluate adequately the changing geological conditions and continued mining a 25-foot depth cut.

   Corrective Actions: The operator has conducted and documented safety meetings with each shift, outlining the requirements for extended cuts, listed in the approved roof control plan. A provision was added to the roof control plan requiring that when abrupt vertical steps greater than 12 inches occur, the mine roof will be sloped or tapered from the upper horizon to the lower horizon to facilitate roof bolt installation in those areas.

CONCLUSION

The accident occurred because the mine operator failed to support a brow properly in the No. 1 entry that was created because of mining height change. The change in height occurred when an extended depth cut was taken in adverse roof conditions and the company mined under the draw rock in order to lower the cutting height.

Approved By:

Charles E. Carpenter
District Manager
Coal Mine Safety and Health, District 4

May 25, 2011
Date

ENFORCEMENT ACTIONS

1. A 103(k) Order, No. 8092102, was issued to Kingston Mining, Inc. A fatal accident has occurred at this operation today, October 11, 2010, when a roof bolter operator was struck by a piece of rock falling from between two rows of bolts. This order is issued to assure the safety of all persons at this operation. It prohibits all activity inby the loading point on the No. 1 section until MSHA has determined that it is safe to resume normal mining operations in this area. The mine operator shall obtain prior approval from an authorized representative for all actions to recover and/or restore operations to the affected area.

2. A 104 (a) Citation, No. 8125753, was issued under 30 CFR § 75.220(a)(1), to Kingston Mining, Inc. The operator has failed to follow the approved Roof Control Plan. On October 11, 2010, a miner received fatal injuries from a fall of roof in the face area of the No. 1 entry, inby survey spad 35296 on the No. 1 working section. There is wide roof bolt spacing at the brow, measuring 56½ inches wide to 58 inches wide. The wide, unsupported area allowed the brow to break off and fall, striking the victim. The rock striking the victim measured 66 inches long, 30 inches wide and 4 to 6 inches thick. This citation is being issued as an enforcement action based upon the fatal accident investigation.

   Standard 75.220(a)(1) was cited 6 times in two years at mine 4608625 (6 to the operator, 0 to a contractor).

3. A 104 (a) Citation, No. 8125754, was issued under 30 CFR § 75.220(a)(1), to Kingston Mining, Inc. The operator has failed to follow the approved Roof Control Plan, as stated in item No. 5, page No. 11. The operator took an extended cut of 25 feet, when adverse roof conditions existed. Prior to and after the initial 15 feet was mined in the face of the No. 1 entry, broken and drummy roof was present. This cut occurred on Friday, October 8, 2010, by the evening shift. An additional 10 feet was mined by the day shift on Monday, October 11, 2010. Prior to the additional 10 feet being mined, 8 inches to 10 inches of draw rock had fallen in the original cut. The additional 10 feet mined created a brow that contributed to a fatal accident. This citation is being issued as an enforcement action based upon the fatal accident investigation.

   Standard 75.220(a)(1) was cited six times in two years at mine 4608625 (six to the operator, zero to a contractor).

APPENDIX A
Persons Participating in the Investigation

Kingston Mining, Inc.

Philip Saunders ..... President
Mike Jiles ..... Superintendent
Robert Siegler ..... Mine Foreman
Larry Helmick ..... Section Foreman
Denny Large ..... Maintenance Foreman
Greg Fernett ..... Safety Director

Alpha Natural Resources

Mark Schuerger ..... President NWV
John Gallick ..... Vice President Safety NWV
Ken Perdue ..... Safety Director
Mike Vaught ..... Safety Director NWV

West Virginia Office of Miners' Health, Safety and Training

C.A. Phillips ..... Deputy Director
Gary S. Snyder ..... Inspector-at-Large
Randy Smith ..... Assistant Inspector-at-Large
Wayne Wingrove ..... Roof Control Inspector
Gene Stewart ..... District Inspector
Larry Wine ..... District Inspector
Elaine Skorich ..... Assistant Attorney General

Mine Safety and Health Administration

Thomas C. Clark ..... CMS&H Inspector/Accident Investigator
William Bane ..... CMS&H Inspector
Darius L. Barker ..... Mining Engineer
Brian Morris ..... Civil Engineer
Rod Shabbick ..... Mine Safety and Health Specialist (Training Specialist - EFS)

APPENDIX B
Persons Interviewed

Allen Shrewsberry ..... Roof Bolter Operator
Chad Kennedy .....Scoop Operator
Carlton Martin .....Continuous Miner Operator
Larry Helmick.....Section Foreman
Chris Kamits ..... Shuttle Car Operator
Danny Lilly .....Continuous Miner Operator
Steve Cox ..... Roof Bolter Operator
James Clay ..... Shuttle Car Operator
Samuel Mink .....Shuttle Car Operator-Lightning Contractor
John Davis ..... Roof Bolter Operator

APPENDIX C
New Safety Precautions from Approved Roof Control Plan

20. When mining in face areas and abrupt vertical steps greater than twelve inches (12") 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.

21. In the event the areas defined in safety precaution #20 above can't be sloped or tapered and a vertical step of twelve inches (12") 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 feet into the upper horizon, one row of cable bolts (4 per row) can be installed on cycle after each of the first two rows of permanent roof bolts of normal length installed in the lower horizon.

22. Cuts 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, fan becomes inoperable, etc.

APPENDIX D
Victim Information

Accident Investigation Data - Victim Information

Event Number: 6 2 8 5 4 9 0

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

Victim Information: 1

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:
William R. Dooley	*M*	*56*	*01 Fatal*

5. Date(MM/DD/YY) and Time(24 Hr.) Of Death: *a. Date: 10/11/2010 b.Time: 12:05*

6. Date and Time Started: *a. Date: 10/11/2010 b.Time: 7:00*

7. Regular Job Title: *046 Off-side operator*

8. Work Activity when Injured: *080 Placing bolt wrench in tray*

9. Was this work activity part of regular job? Yes | X | No |

10. Experience	Years	Weeks	Days
a. This Work Activity:	9	20	0
b. Regular Job Title:	9	20	0
c: This Mine:	9	20	0
d. Total Mining:	31	0	0

11. What Directly Inflicted Injury or Illness? *089 Brow fell*

12. Nature of Injury or Illness: *170 Craniocerebral injury*

13. Training Deficiencies
Hazard: | New/Newly-Employed Experienced Miner: | Annual: | Task:

14. Company of Employment: (If different from production operator) *Operator*
Independent Contractor ID: (if applicable)

15. On-site Emergency Medical Treatment
Not Applicable: | First-Aid: X | CPR: | EMT: X | Medical Professional: | None:

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

17. Union Affiliation of Victim: *9999 None (No Union Affiliation)*

Victim Information:

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:

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

6. Date and Time Started:

7. Regular Job Title:

8. Work Activity when Injured:

9. Was this work activity part of regular job? Yes | No |

10. Experience:	Years	Weeks	Days
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:			
d. Total Mining:			

11. What Directly Inflicted Injury or Illness?

12. Nature of Injury or Illness:

13. Training Deficiencies:
Hazard: | New/Newly-Employed Experienced Miner: | Annual: | Task:

14. Company of Employment: (If different from production operator)
Independent Contractor ID: (if applicable)

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

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

17. Union Affiliation of Victim:

Victim Information:

1. Name of Injured/Ill Employee:	2. Sex	3. Victim's Age	4. Degree of Injury:

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

6. Date and Time Started:

7. Regular Job Title:

8. Work Activity when Injured:

9. Was this work activity part of regular job? Yes | No |

10. Experience:	Years	Weeks	Days
a. This Work Activity:			
b. Regular Job Title:			
c: This Mine:			
d. Total Mining:			

11. What Directly Inflicted Injury or Illness?

12. Nature of Injury or Illness:

13. Training Deficiencies:
Hazard: | New/Newly-Employed Experienced Miner: | Annual: | Task:

14. Company of Employment: (If different from production operator)
Independent Contractor ID: (if applicable)

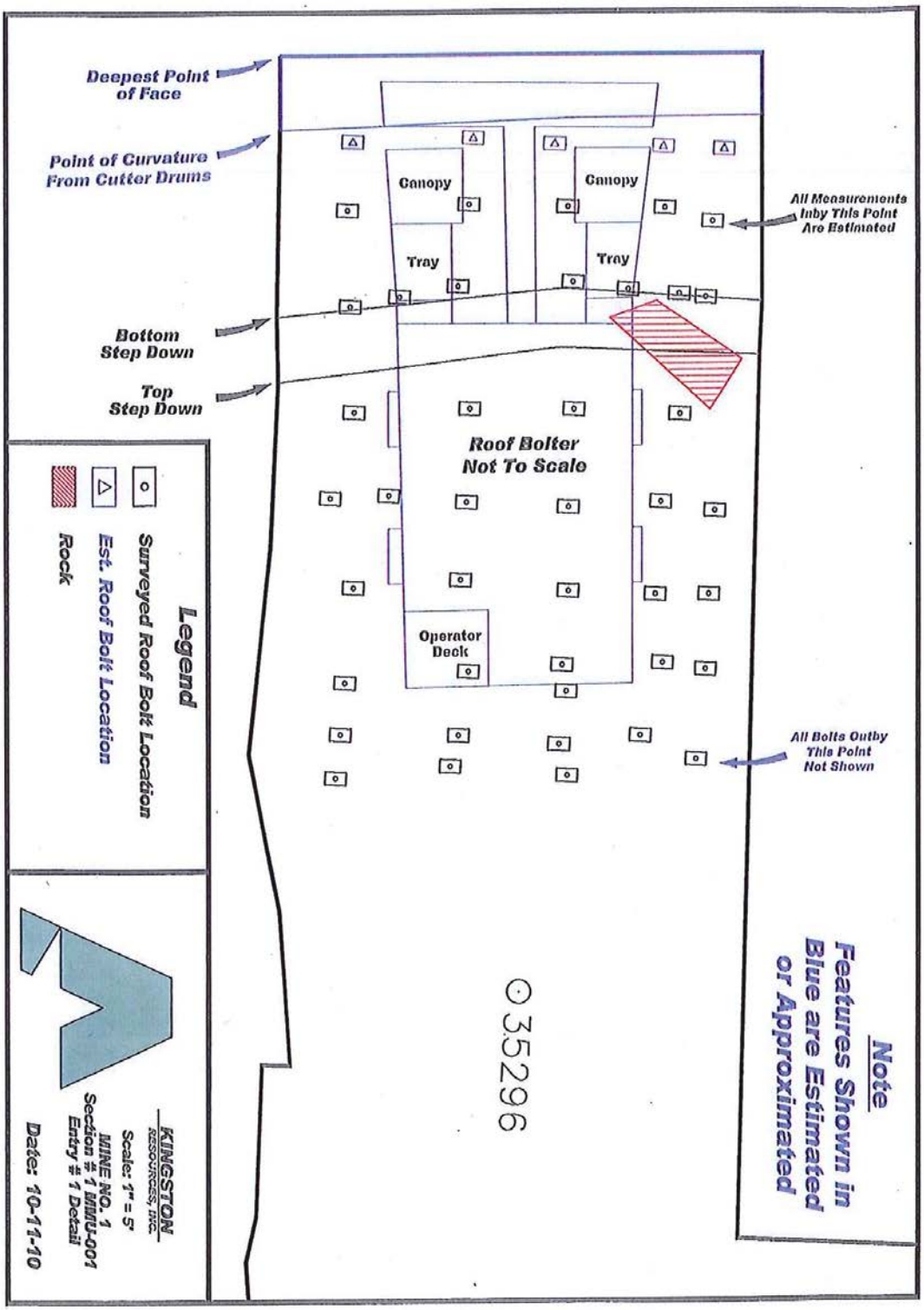
15. On-site Emergency Medical Treatment:
Not Applicable: | First-Aid: | CPR: | EMT: | Medical Professional: | None:

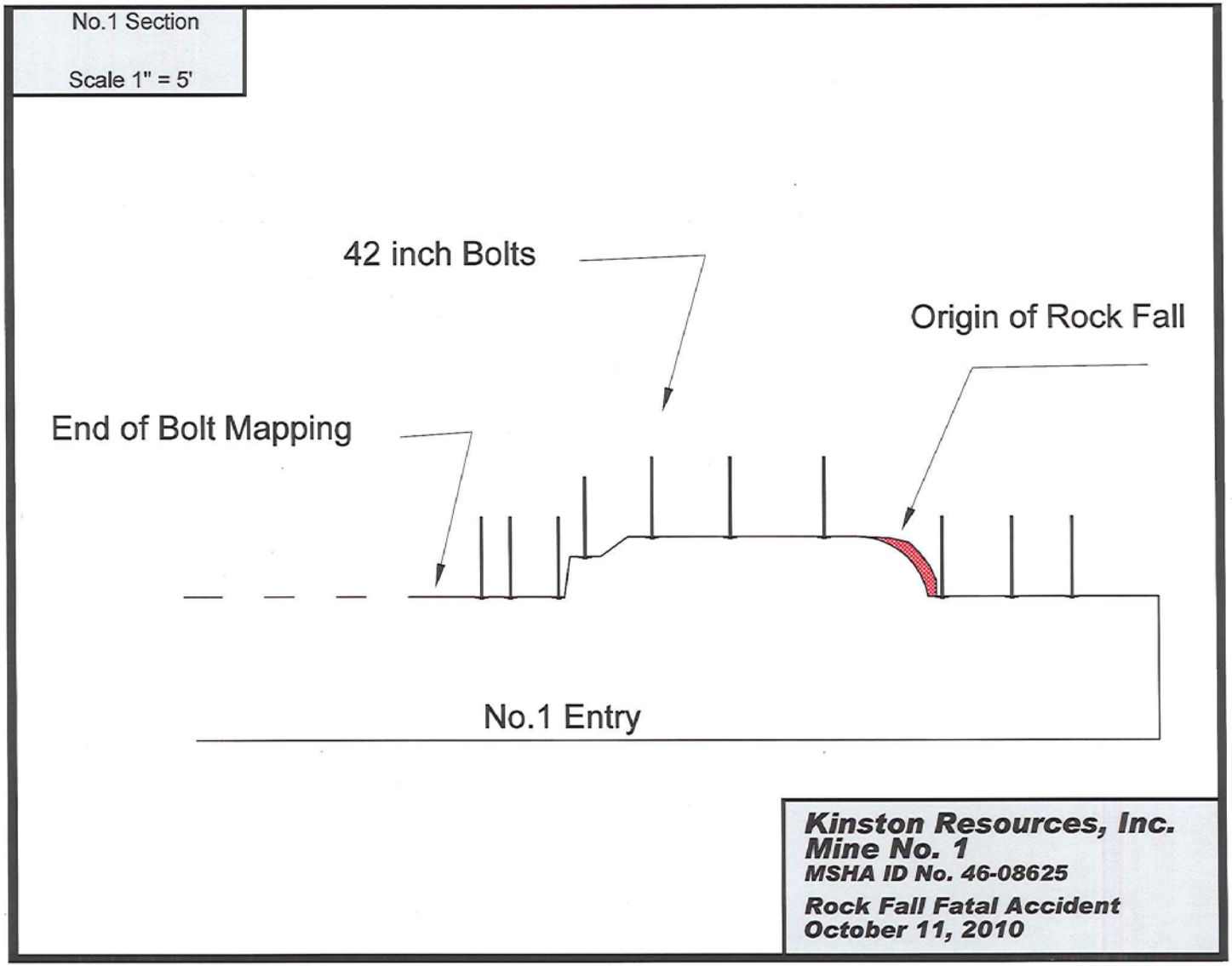
16. Part 50 Document Control Number: (form 7000-1)

17. Union Affiliation of Victim:

MSHA Form 7000-50b, Mar 2008 Printed 03/10/2011 2:34:55 PM

APPENDIX E
Accident Scene Sketches




No.1 Section
Scale 1" = 5'
42 inch Bolts
Origin of Rock Fall
End of Bolt Mapping
No.1 Entry
Kinston Resources, Inc.
Mine No. 1
MSHA ID No. 46-08625
Rock Fall Fatal Accident
October 11, 2010