CAI-2010-02

UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Fall of Face, Rib, or Pillar Accident January 22, 2010

Bledsoe Coal Corporation Abner Branch Rider Big Laurel, Leslie County, Kentucky ID No. 15-19132

Accident Investigators

Charles Ramsey Coal Mine Safety and Health Inspector

Sandin Phillipson Geologist, Roof Control Division Pittsburgh Safety and health Technology Center

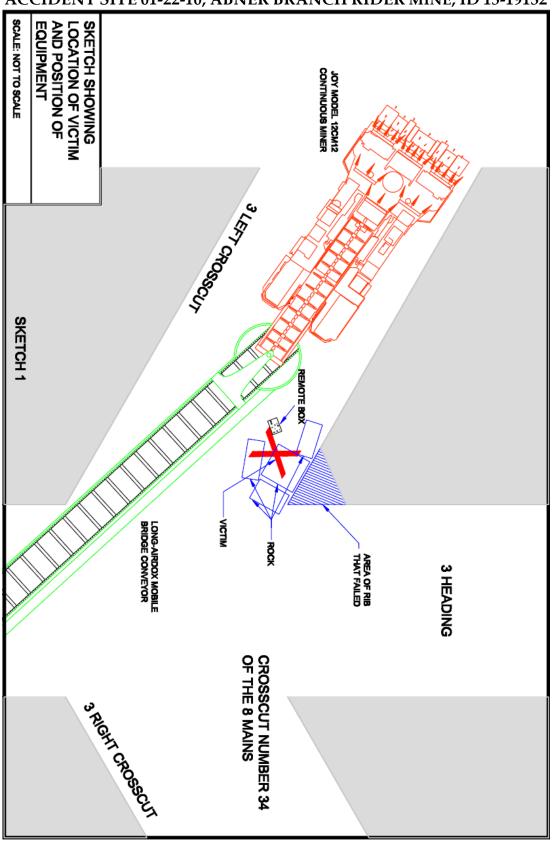
> John Boylen Roof Control Specialist

Debra Combs Educational Field Services

Originating Office Mine Safety and Health Administration District 7 3837 South US Hwy 25E Barbourville, KY 40906 Irvin T. Hooker, District Manager

TABLE OF CONTENTS

SKETCH OF ACCIDENT SITE	ii
OVERVIEW	1
GENERAL INFORMATION	1
DESCRIPTION OF ACCIDENT	2
INVESTIGATION OF THE ACCIDENT	2
DISCUSSION	3
GEOLOGY	4
ARMPS ANALYSIS	5
EXAMINATIONS ON 001 MMU	5
TRAINING	7
ROOT CAUSE ANALYSIS	7
CONCLUSION	9
ENFORCEMENT ACTIONS	10
Appendix A - Persons Participating in the Investigation	12
Appendix B – List of Persons Interviewed	13
Appendix C - Photographs	14
Appendix D – 7000-50b	



ACCIDENT SITE 01-22-10, ABNER BRANCH RIDER MINE, ID 15-19132

OVERVIEW

At approximately 9:15 a.m. on Friday, January 22, 2010, a 29-year old miner with 10 years experience as a continuous miner operator was fatally injured when a rib roll occurred, causing a massive rib rock to pin him against the mine floor. The victim was trimming and cleaning the mine floor with a Joy Model 12CM remote control continuous mining machine in a bolted crosscut when the accident occurred. The rock that fell broke into several pieces, with the total size measured at approximately 82 inches high, 66 inches long, and 108 inches wide. The total weight of the rock prior to breaking was approximately 9.3 tons.

GENERAL INFORMATION

The Abner Branch Rider Mine is an underground coal mine owned and operated by Bledsoe Coal Corporation, a subsidiary of James River Coal Company. The mine is located in Leslie County, Kentucky and is developed in the Hazard #4 Rider Seam. Mining height ranges from 5 ½ feet, to 10 feet and the mine is accessed by four drift openings. A total of 60 miners are employed on two production shifts and one maintenance shift, five days per week, 9 hours per shift. This mine has one working section with an average production of 1,466 tons per day. Coal is extracted from the faces by a continuous miner and transported by a continuous haulage system and belt conveyors to the surface. Materials, supplies, and miners are transported via rail motors and rubber tired mantrips.

The principal officials for the mine at the time of the accident were:

Tim Frasure	President
David Osborne	General Manager
Bobby Strunk	Superintendent
Steve Shell	—

The last regular safety and health inspection (E01) conducted by the Mine Safety and Health Administration (MSHA) prior to the accident was completed on December 22, 2009. The Non-Fatal Days Lost (NFDL) injury incidence rate for the Abner Branch Rider Mine through the 3rd quarter of 2009 was 3.90, compared to a National NFDL rate of 4.12.

DESCRIPTION OF ACCIDENT

On Friday morning January 22, 2010, at approximately 7:00 a.m., six members of the day shift production crew, under the direction of Paul Bentley, Section Foreman, entered the mine via rail mantrip. They arrived on the 001 Mechanized Mining Unit (MMU) at approximately 7:30 a.m. Four members of the crew were already on the section, having begun work at 5:00 a.m. to perform roof bolting operations. Upon arrival, Bentley began conducting an on-shift examination of the section and the remainder of the crew began normal production operations.

At approximately 8:30 a.m., Travis Brock (victim), Continuous Miner Operator, trammed the miner to the face of the #3 Heading. After completing the cut, Brock backed the continuous miner just outby #34 Crosscut. The roof bolting machine, which was on cycle to bolt the completed cut, was in the #2 Heading. Before it could be trammed to the #3 Heading, a 10 to 12 inch offset in the floor of the #3 Left Crosscut needed to be trimmed and the crosscut cleaned. After changing 4 or 5 bits on the mining machine, Brock began to trim and clean the crosscut. Bentley and Daniel Nantz, Roof Bolter Operator, were standing at the edge of the #3 Right Crosscut. As Brock began backing up the miner, Bentley heard rib rock fall. Looking toward the miner and not seeing Brock, Bentley and Nantz went to check on him.

The continuous miner and bridge units suddenly lost power and Jerry Hawkins, Front Bridge Carrier Operator, observed Bentley and Nantz rushing towards the continuous miner. Hawkins and James Sizemore, Outby Bridge Carrier Operator, went to investigate. Bentley and Nantz found Brock pinned underneath two sections of the fallen rock, behind the continuous miner. With assistance from Hawkins, Sizemore, and Jerry Caldwell, Roof Bolter Operator, the portion of broken rock that struck Brock was removed and he was placed on a backboard. James Lawson, Face Belt Attendant, called outside and notified June Turner, Surface Dispatcher, of the occurrence of a serious injury. First aid was administered by Caldwell, a Mine Emergency Technician. Brock was then carried to the #3 Right area at #33 Crosscut and placed in the bucket of the Simmons-Rand 602 Scoop. He was transported in the scoop to the end of the track at #12 Crosscut on 8 Mains and placed on the rail mantrip. Accompanied by James Noble, also a Mine Emergency Technician, Brock was transported to the surface where he was pronounced dead at 11:10 a.m. by Jimmy Couch, Assistant Deputy Coroner.

INVESTIGATION OF THE ACCIDENT

The MSHA National Call Center was notified at approximately 9:28 a.m. by Barbara Smith of Bledsoe Coal that a life threatening injury had occurred at the Bledsoe Coal Corporation's Abner Branch Rider mine. The MSHA District 7 Office was notified by the National Call Center at approximately 9:33 a.m. A verbal 103(j) Order was issued to Steve Shell, Safety Director, at approximately 9:35 a.m. by Jim Langley, Assistant District Manager. Langley then notified Lester Cox, Harlan Field Office Supervisor, to dispatch Charles Ramsey, MSHA Accident Investigator, to the mine site. The 103(j) Order was modified to a 103(k) Order after MSHA arrived at the mine.

The accident investigation was conducted in cooperation with the Kentucky Office of Mine Safety and Licensing (OMSL), with assistance from the mine operator and employees. A list of persons participating in or present during the investigation is included in Appendix A.

Representatives of MSHA, OMSL, and the operator traveled underground to the accident site to examine the scene and begin an investigation of the existing physical conditions.

On Saturday, January 23, 2010, a representative of MSHA's Educational Field Services reviewed training records and a representative of MSHA's Pittsburgh Technical Support office provided assistance with evaluation of the geologic conditions on the 001 MMU.

Interviews were conducted with 16 persons on January 26, 2010 at the Barbourville MSHA District Office in conjunction with OMSL representatives.

DISCUSSION

This massive rib roll occurred in the 8 Mains Section at the intersection of #34 Crosscut and the #3 Heading. The 8 Mains had been developed 34 crosscuts, which represents the maximum eastern extent of mining. Five entries or headings had been developed on 55-foot centers and crosscuts on 63.5-foot centers. Mining was accomplished with a continuous haulage system, resulting in 60° angled crosscuts turned from the #3 Heading, which is also the belt entry. Mining width varied from 18 to 20 feet. Primary roof support consisted of 5-foot long, 7/8-inch diameter, fully grouted bolts. No rib support was observed on the 001 MMU.

Mining height from the mouth of 8 Mains to #15 Crosscut is approximately 12 feet, decreasing to approximately 9 feet inby #16 Crosscut as a rider seam splits from the mining horizon and rises into the roof. Mining height in the vicinity of the accident site is 9 to10 feet. Outby #33 Crosscut, the ribs exhibited sloughing and the sharp pillar corners created by the continuous haulage mining method

had either sloughed off or exhibited fracturing 3 to 4 feet into the pillar from the acute-angled corner.

Inby #32 Crosscut, 8 Mains dropped from 5 to 3 entries. At this location the coal seam dropped to approximately six inches in thickness in #33 Crosscut and was replaced by sandstone and shale. Between #33 and #34 Crosscuts, the roof changed from strongly cemented, generally smooth shale, to gray mudstone. Inby #34 Crosscut, the coal seam increased quickly to normal thickness. The inby rib point where #34 Crosscut was turned toward the #2 Heading occurred within this transition area. At the pillar corner, the coal height was approximately 3.3 feet. The fallen rock measured 6.8 feet and there was approximately 10 inches of roof rock. At a depth of 5.5 feet from the former pillar corner, at the back of the fall, the rock measured 3.3 feet in height with a corresponding increase in coal height. This wedge of rock broke loose and fell out along the rock/coal interface, striking the continuous miner operator and pinning him to the mine floor.

GEOLOGY

Beginning in #33 Crosscut, the coal pinched out to approximately six inches in thickness as interbedded sandstone and shale was encountered in the mining horizon. The coal began to resume normal thickness inby # 34 Crosscut as the contact between coal and overlying shale and sandstone rose rapidly into the roof. The 8 Mains was narrowed down from five to three entries upon encountering the sandstone roll. Between #33 and #35 Crosscuts, the roof changed character from strongly cemented shale, which formed a generally smooth roof horizon outby, to gray mudstone that hosted abundant, large, randomly oriented plant debris with numerous development style pot-outs in the roof.

Inby the #34 Croscut intersection, the interbedded sandstone and shale rose quickly with a related increase in coal thickness. The contact between coal and the overlying sandstone and shale was defined by an undulating slickenside plane that exhibited a strike of North 12° West and dip of 50° West. The slickenside was traced directly from the #3 to #2 Heading, trending through #34 Crosscut, and projected toward the #4 Heading, where a prominent, planar slickenside with the same strike was present in the roof (Figure 2, Appendix C). The 50° West dip of the slickenside defined a formative sliding plane through the acute-angled corner of the pillar on the inby side of #34 Crosscut (Figure 3, Appendix C).

The fatal rock was defined by the North 12° W slickenside, which formed the undercutting formative plane that allowed sliding of the pillar corner down the 50° inclined surface (Figure 3, Appendix C). The top of the fatal rock separated along a smooth bedding lamination in the sequence of interbedded shale and fine-grained sandstone. The fallen pillar wedge consisted entirely of rock and was estimated to be 110 cubic feet in volume, weighing approximately 9.3 tons. The fallen wedge was trapezoidal in shape, defined by the inclined slickenside plane on the bottom, the horizontal delamination plane on top, and the two converging ribs. Part of the fallen wedge was defined by a plane of tensile failure in the fine-grained sandstone, which defined a planar fracture 9 feet long by 3.3 feet high, oriented vertically above the inclined slickenside plane and intersecting the horizontal delamination horizon (Figure 4, Appendix C). The plane of tensile (of tension) failure was 5.5 feet from the former pillar corner, and the fallen wedge tapered from a height of 6.8 feet at the pillar corner to 3.3 feet at the rear of the wedge as the slickenside rose into the pillar (Figures 3 and 4, Appendix C).

ARMPS ANALYSIS

An MSHA Analysis of Retreat Mining Pillar Stability (ARMPS) of 8 Mains indicates a Pillar Stability Factor of 0.83 beneath the 820 feet of overburden at the accident site. This value does not meet the National Institute of Occupational Safety and Health (NIOSH) recommended Stability Factor of 1.33.

EXAMINATIONS ON 001 MMU

The January 22, 2010, preshift examination conducted between 4:30 a.m. and 5:50 a.m. by Lowell Harris, Third Shift Section Foreman for the 001 MMU, was called outside at 6:25 a.m. The only hazardous condition noted in the preshift record for the 001 MMU was "Not Bolted," and the corrective action was "Tagged." There was a statement in the remarks section that read, "Use caution around ribs and watch for draw rock." The preshift examination did not identify any specific hazardous rib or roof conditions and no corrective actions for rib and roof conditions were recorded. The examiner either ignored or did not recognize the hazardous rib conditions, because the day shift crew was directed to proceed underground to begin production without hazardous conditions being recorded or corrective actions taken.

There were, in fact, numerous hazardous conditions present on the 001 MMU at the time of the preshift examination. There were numerous locations with loose coal/rock ribs on the 001 MMU, including the rib in the No. 3 Heading at #34 Crosscut that fell, causing fatal injuries to the continuous miner operator. There

were also violations of the Approved Roof Control Plan at multiple locations on the 001 MMU. The maximum allowable entry width of the pillar shears was exceeded in two locations, creating excessive intersection widths. Roof support materials were not installed in accordance with the manufacturers recommendations; channel straps were installed over cracks and draw rock without using the correct bearing plates. The #2 Heading at #33 Crosscut was not bolted completely along the left rib. Six separate locations were identified as violations of the approved roof control plan. Lowell Harris, Foreman, performed an inadequate preshift examination.

No specific hazardous rib or roof conditions are recorded for any preshift examinations dating back to January 7, 2010 for any shift, other than a statement in the remarks saying, "Use caution around ribs and watch for draw rock." No corrective actions for any rib or roof conditions were recorded in the preshift examination report in the books reviewed. The statement to use caution or watch for hazardous conditions is not an acceptable corrective action to prevent serious injuries from occurring.

No hazardous conditions were noted in the on-shift examination conducted by Paul Bentley, Foreman, at the beginning of the shift. The hazardous roof and rib conditions present on the 001 MMU were not identified and corrected or posted until the hazardous conditions were corrected. Mine management directed work to be performed in the #3 Right Crosscut where the accident occurred and other locations on the 001 MMU where hazardous conditions were present. The three previous on-shift examinations and the pre-shift examination on the morning of the fatal accident for the 001 MMU did not identify any hazardous rib or roof conditions or corrective actions. Miners were exposed to loose ribs and inadequately supported roof conditions throughout the duration of these shifts. Not only did the Pre-shift Examiner perform an inadequate examination prior to the fatal accident, but Bentley also performed an inadequate on-shift examination prior on the 001 MMU prior to the occurrence of the fatal accident.

TRAINING

The company's training records were examined by representatives of MSHA's Educational Field Services (EFS). No training deficiencies for Brock were noted. All training records were examined and no deficiencies were found for other company employees.

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:* The operator failed to support or control the mine rib to prevent the massive rib failure, which resulted in fatal injuries to the continuous miner operator .

Corrective Action: The hazardous rib conditions were corrected. The operator also conducted and documented safety meetings with all employees on proper identification of hazardous conditions.

2. *Root Cause:* The operator failed to instruct miners with regard to properly identifying hazardous conditions.

Corrective Action: The operator conducted and documented safety meetings with the miners for all three shifts on the proper identification of hazardous conditions. The miners were instructed to report to mine management immediately any hazardous conditions observed.

3. *Root Cause:* The operator failed to conduct adequate preshift and on-shift examinations on the 001 MMU. Uncorrected roof and rib conditions existed during the shift, which posed hazards to the miners. None of the hazardous conditions, including hazardous ribs, were recorded in the preshift or on-shift examination books.

Corrective Action: The hazardous rib conditions were corrected. The operator conducted and documented safety meetings with all employees, including the mine examiners, on properly identifying and recording hazardous conditions. Additionally, the operator instituted a policy of posting the findings of the preshift examiner where those findings could be observed readily by the miners prior to their entry into the mine.

4. *Root Cause:* The operator failed to have in place an adequate roof control plan addressing proper support of mine ribs in changing geological conditions and to support the ribs properly on the 001 MMU.

Corrective Action: The operator has developed and submitted a revision to the current roof control plan, which has been approved. The revision states actions that will be taken to support rib conditions in various heights and geological conditions. Fletcher twin-head, walk-thru roof bolters with rib bolting capacity have also been installed.

CONCLUSION

This fatal accident occurred because the operator failed to support the rib on the 001 MMU to protect the miner. Additionally, the operator failed to conduct adequate preshift and on-shift examinations and ignored the hazardous rib conditions on the 001 MMU. And, the operator failed to change its Roof Control Plan to address the changing geological conditions which occurred on the 001 MMU

Approved By:

In J. Hocher

Irvin T. Hooker District Manager

May 25, 2010 Date

ENFORCEMENT ACTIONS

<u>Order No. 8356693</u> was issued verbally to Bledsoe Coal Corporation on January 22, 2010, at 9:35 a.m. under the provisions of Section 103(j) of the Mine Act. This order was modified to a 103(k) Order at 11:15 a.m. on the same day.

<u>104(a) Citation, No. 8355745</u> for a violation of 30 CFR, § 75.220(a)(1) - The operator failed to develop a roof control plan that was suitable for the prevailing geological conditions on the 001 MMU, located at 8 Mains. Provisions were not made in the mine's roof control plan to control ribs in changing mining conditions, and an adequate pillar stability factor was not being maintained. A portion of rib, which measured 3.3 to 6.8 feet thick x 5.5 feet long x 9 feet wide was not supported properly on the corner of the left pillar inby #34 Crosscut in the #3 Belt Heading on 8 Mains. Due to changing geological conditions in this area, including increased mining height and a sharp increase in the coal height meeting with sandstone and shale roof rock, a slickenside plane was formed. This condition allowed the rib to slide out, fatally injuring the continuous mining machine operator.

104(d)(1) Citation, No. 8355746 for a violation of 30 CFR, § 75.202(a) - The ribs on the 001 MMU were not supported to protect miners from hazards of loose ribs. The investigation of this fatal accident, which occurred on January 22, 2010, revealed that the operator failed to support the loose coal/rock ribs in the following locations: (1) at #32 Crosscut on the sides and inby corners of the coal pillar blocks in the #3 and #4 Headings,(2) at #33 Crosscut in the #3 Belt Heading where the upper inby corners of the left and right ribs were separated from the coal pillar and top approximately ¹/₂ inch and in the #4 Heading where loose coal was separating from the rib line, and (3) at #34 Crosscut in the #3 Belt Heading, where the right side inby corner of the coal pillar cracked and separated from the pillar and a part of the rib measuring 3.3 feet to 6.8 feet thick x 5.5 feet long x 9 feet wide slid out of the rib line and struck the continuous miner operator fatally injuring him. In the #3 Heading at #34 Crosscut, the 2nd shift foreman's dates, times, and initials were on the exact location of the loose area of the rib that detached from the rib and slid out, fatally injuring the continuous miner operator. Upon examination of the pre-shift book dates, back to January 7, 2010, foremen were writing the following statement in the "Remarks" section, "Use caution around ribs and watch for draw rock." No written explanation was given as to any measures taken to protect miners against the hazardous rib conditions. The operator has engaged in aggravated conduct constituting more than ordinary negligence in that management did not take measures to ensure safe working conditions around ribs. This violation is an unwarrantable failure to comply with a mandatory standard.

104(d)(1) Order, No. 8355747 for a violation of 30 CFR, § 75.360(a)(1) - The operator failed to conduct an adequate pre-shift exam on January 22, 2010 for the 001 MMU located at 8 Mains. The following conditions were found during a fatal accident investigation: (1) loose ribs in various sizes were found at (a) #32 Crosscut on the sides and inby corners of the coal pillar blocks in the #3 and #4 Headings, (b) at #33 Crosscut in the #3 Belt Heading, the upper inby corners of the left and right ribs were separated from the coal pillar and top approximately $\frac{1}{2}$ inch, in the #4 Heading, loose coal was separating from the rib line, and at #34 Crosscut in the #3 Belt Heading, the right side inby corner of the coal pillar had cracked and separated from the pillar and a part of the rib measuring 3.3 feet to 6.8 feet thick x 5.5 feet long x 9 feet wide slid out of the rib line, fatally injuring the continuous miner operator; (2) the entry width of the sheared corner of the rib in #3 Left and #3 Right at #33 Crosscut measured 30 feet. The maximum allowable entry width of the sheared area in the approved roof control plan is 28.1 feet; (3) in various areas in the #2, #3, and #4 Headings, T-5 dome channel straps were installed over cracks and draw rock in the roof with a regular 6 x 6 flat roof bolt plate, which is not in accordance with the manufacturers recommendations; and, (4) an area along the left rib in the #2 entry at #33 Crosscut, that measured 7 feet x 12 feet, was not completely bolted. The operator has engaged in aggravated conduct constituting more than ordinary negligence in that upon inspection of the pre-shift exam book, none of these hazardous conditions were recorded in the 001 MMU exam book. This violation is an unwarrantable failure to comply with a mandatory standard.

104(d)(1) Order, No. 8355777 for a violation of 30 CFR, § 75.362(a)(1) - During the course of MSHA's Fatal Accident Investigation which began on January 22, 2010, it was found that adequate on-shift examinations were not performed on January 21 and 22, 2010, on the 001 MMU. The following deficiencies were noted: (1) the 2nd shift on-shift report for January 21, 2010, did not identify a hazardous rib condition in the #3 Belt Heading, (2) the 3rd shift on-shift report for January 22, 2010, did not identify a hazardous rib condition in the #3 Belt Heading, and (3) the 1st shift on-shift report recorded on January 22, 2010, which was performed approximately 1 hour prior to the fatal accident, did not identify any hazardous rib condition. All three on-shift examiners recorded "None Observed" in the on-shift record for the #3 Belt Heading. Mine management directed that the offset in the mine floor be trimmed in #3 Left Crosscut. The operator has engaged in aggravated conduct constituting more than ordinary negligence in that the hazardous rib conditions were not found, and no action was taken, which led to the exposure of the Continuous Miner Operator to fatal crushing injuries. This violation is an unwarrantable failure to comply with a mandatory standard.

Appendix A Persons Participating in the Investigation

Mining Company Officials

<u>Name</u>

<u>Title</u>

President
General Manager
Superintendent
Foreman
Safety Director
Foreman
Attorney

Kentucky Office of Mine Safety and Licensing

Name

<u>Title</u>

Accident Investigator
Deputy Chief Accident Investigator
Chief Accident Investigator
Roof Control Specialist
Inspector
Safety Analyst
Roof Control Specialist

Mine Safety and Health Administration

<u>Name</u>	<u>Title</u>
Tommy Hooker	District Manager
Jim Langley	Assistant District Manager
John Pyles	Assistant District Manager
Steve Sorke	
Ron Burns	Supervisor
John Boylen	Accident Investigator
Charlie Ramsey	Accident Investigator
Frankie Gibson	Coal Mine Inspector
Sandin Phillipson	Pittsburgh Technical Support
Debra Combs	EFS Specialist
Charles Maggard	EFS Supervisor

Appendix B List of Persons Interviewed

<u>Name</u>

<u>Title</u>

David Osborne	General Manager
Bobby Strunk	Superintendent
Harold Callahan	Foreman
Paul Bentley	Foreman
Daniel Nantz	Roof Bolter Operator
Doug Hornsby	Electrician
Larry Neff	Roof Bolter Operator
James Lawson	Face Belt Attendant
John Noble	
Mike Lewis	Roof Bolter Operator
Jerry Caldwell	Roof Bolter Operator/MET
James Sizemore	
Jerry Hawkins	Bridge Carrier Operator
Jamie Carnes	Outby Miner
Chad Chasteen	Surface MET
Steve Osborne	Rail Motor Operator

Appendix C Photographs

AREA WHERE RIB FELL



FIGURE 2

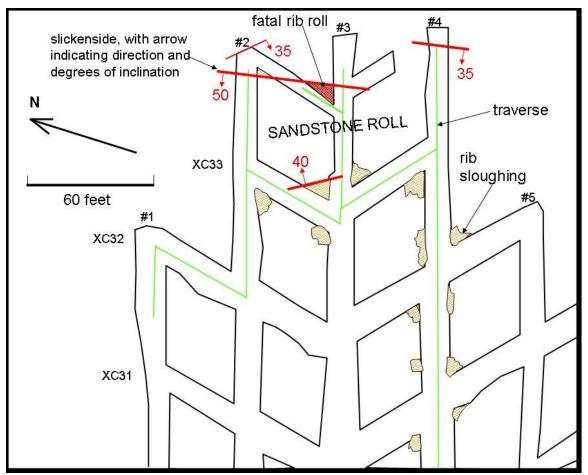


Figure 2. Map of observations near the 8 Mains 001 MMU faces, showing location of N 12° W, 50° W slickenside that defined the fatal rib roll.

FIGURE 3



Figure 3. Profile view from #3 Heading of the dipping slickenside plane, which allowed the pillar corner, composed of shale and sandstone, to slide outward. Upper failure surface was defined by delamination along a smooth, bedding parting, and rear failure surface represents tensile failure in the rock

FIGURE 4

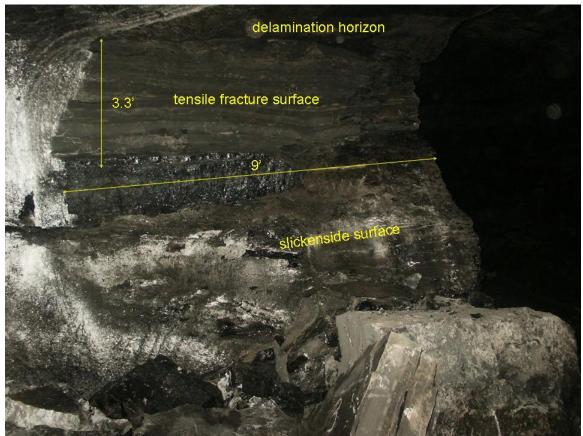


Figure 4. Frontal view of failed pillar corner, facing the inclined slickenside plane and rear tensile failure plane.

Appendix D 7000-50b

	15									
Accident Investigation Data - Victin	Informatio	n			S. Depar				li	>
Event Number: 4 4 4 8 5	9 6			Mir	ne Safety a	nd Heal	th Adm	inistratio	on 🏹	
Victim Information: 1										
1. Name of Injured/III Employee: 2. Sex	3. Victim's Age	e 4. Las	t Four Digits of	SSN:	5. Degree of In	jury:				
Travis G. Brock M	29		7719		01 Fatal					
Date(MM/DD/YY) and Time(24 Hr.) Of Death:				d Time Started						
a. Date: 01/22/2010 b.Time: 11:10				Date: 01/22/20	010 b.Time: 9:1					- 0
8. Regular Job Title:		Work Activity whe				10. Was t	his work a	ctivity part	of regular jo	D?
036 Continuous Miner Operator	04	9 Operate Cont	tinuous Miner				Yes	X No		
11. Experience Years Weeks Days a. This	b. Regular	Years Weeks	Days c:	Years This	Weeks	Days	d. Total	Years	Weeks	Days
Work Activity: 10 0 0	Job Title:	10 0		ine: 1	29	0	Mining:	12	0	0
12. What Directly Inflicted Injury or Illness? 122 Rib				Nature of Injury 70 Crushing						
14. Training Deficiencies:										
Hazard: New/Newly-Emplo	yed Experienced	Miner:		Annual:		Task:				
15. Company of Employment: (If different from pro- Operator	duction operator)				Independent C	ontractor ID	: (if applic	able)		
16. On-site Emergency Medical Treatment:										
Not Applicable: First-Aid: X	CPR	E X EN	т: X	Medical Profe	ssional: X	None:				
17. Part 50 Document Control Number: (form 700	0-1) 22010020	80025	18. Union A	ffiliation of Victi	m: 9999	None	No Union	Affiliation)		
Victim Information:										
1. Name of Injured/III Employee: 2. Sex	3. Victim's A	Age 4. Las	st Four Digits o	f SSN:	5. Degree of Ir	njury:				
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death:			7. Date a	and Time Starte	ed:					
8. Regular Job Title:	9.	Work Activity wh	en Injured:			10. Was	this work Yes	activity par	t of regular j	job?
11. Experience: Years Weaks Day		Years Weeks	Days	Year	s Week	Days		Years	Weeks	Days
a. This	b. Regular	Years Weeks	Days	c: This	o noon	Duju	d. Total			
Work Activity:	Job Title:			Mine:	a a Marana		Mining:			
12. What Directly Inflicted Injury or Illness?			13.	Nature of Injury	or liness:					
14. Training Deficiencies:	and Exectioner	d Moore]		Annual	1.1	Task:	É E			
Hazard: New/Newly-Emp										
15. Company of Employment: (If different from pro	duction operator			Independent C	Contractor ID: (if	applicable				
16. On-site Emergency Medical Treatment:		3		Madical Deale		None:	£ 1			
Not Applicable: First-Aid:	CPR:	EM		Medical Profe		None:	i			
17.Part 50 Document Control Number: (form 700	0-1)		18. Union A	Affiliation of Vict	tim:					
Victim Information:										
1. Name of Injured/III Employee: 2. S	ex 3. Victim's	s Age 4. L	ast Four Digits.	of SSN:	5. Degree of	f Injury:				
6. Date(MM/DD/YY) and Time(24 Hr.) Of Death			7. Date	and Time Star	ted:					
8. Regular Job Title:		9. Work Activity v	when Injured:			10. Wa	s this work Yes		rt of regular	job?
11. Experience: Years Weeks Da	lys	Years Wee	ks Days	Ye	ars Week	Day	s	Years	Weeks	Days
11. Experience: Years Weeks Da a. This	b. Regular	10010 1100	Jujo	c: This			d. Tota	ui -		
Work Activity:	Job Title:			Mine:			Mining	· .		
12. What Directly Inflicted Injury or Illness?			1	Nature of Inj	ury or Illness:					
14. Training Deficiencies: Hazard: New/Newly-En	nployed Experien	ced Miner:		Annu	ual:	Task				
15.Company of Employment:(If different from pro	duction operator)		Independent C	Contractor ID: (i	f applicable)			
16. On-site Emergency Medical Treatment:										
Not Applicable: First-Aid:	CP	R:	EMT:	Medical Pro	ofessional:	None				
Rot ripplication			18 Uni	on Affiliation of	Victim:					
17. Part 50 Document Control Number: (form 70	00-1)		10. 011							

MSHA Form 7000-50b, Dec 1994

Printed 03/11/2010 7:07:53 AM