

**UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION**

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

**Fatal Roof Fall
June 16, 2008**

**Harmony Mine
UAE Coalcorp Associates
Mount Carmel, Northumberland County, PA
ID No. 36-07838**

Accident Investigators

Thomas J. Garcia
Supervisory Coal Mine Safety and Health Inspector

George J. McIntyre
Mine Safety and Health Inspector/Lead Investigator

Gregory Mehalchick
Civil Engineer - District 1

Dennis Herring
Mine Safety and Health Inspector

James G. Vadnal
Engineer - Technical Support

Originating Office
Mine Safety and Health Administration

District 1

The Stegmaier Building, Suite 034
7 North Wilkes-Barre Boulevard

Wilkes-Barre, PA 18702

John A. Kuzar, District Manager

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DRAWING OF THE ACCIDENT SCENE

003-0 MMU No.1 Southeast Entry

Drawing #1, Sketch of Accident Site

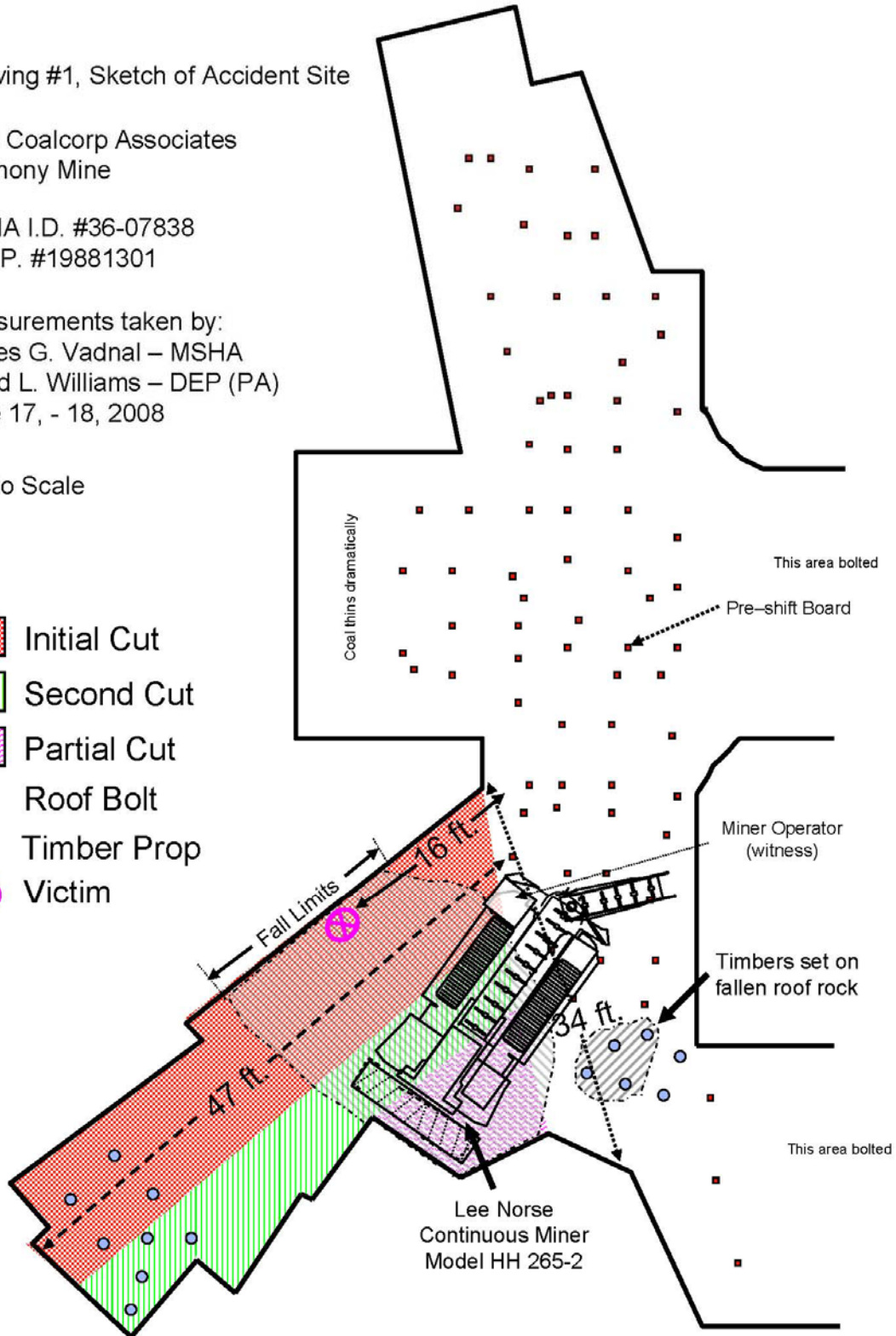
UAE Coalcorp Associates
Harmony Mine

MSHA I.D. #36-07838
U.M.P. #19881301

Measurements taken by:
James G. Vadnal – MSHA
David L. Williams – DEP (PA)
June 17, - 18, 2008

Not to Scale

-  Initial Cut
-  Second Cut
-  Partial Cut
-  Roof Bolt
-  Timber Prop
-  Victim



OVERVIEW

At approximately 9:20 a.m. on Monday, June 16, 2008, Robert Carey, a 45 year old Acting Section Foreman with 9 years, 13 weeks, and 1 day mining experience was fatally injured on the retreat mining section 003-0, No. 1 southeast entry between No. 7 and No. 8 crosscuts (Please refer to Appendix B). The accident occurred after the continuous miner (continuous mining machine) operator Matt Oliveri, was directed to begin cutting coal from the west end of the coal pillar, increasing the width of the pillaring area, and exposing more of the adverse roof condition. The mining of this section of the pillar caused the roof to collapse, pinning Carey (victim) against the coal rib, resulting in fatal injuries. The victim was positioned along the east end of the solid pillar line, approximately 16 feet in by the last permanent roof supports, in an area previously mined three days prior.

GENERAL INFORMATION

UAE Coalcorp Associates, Harmony Mine, an underground anthracite mine, is located in Northumberland County approximately one-half mile east of Mt. Carmel, Pennsylvania, off Route 54.

The principal officers for Harmony Mine at the time of the accident were:

| | |
|----------------------|------------------------------|
| Tom McMahon..... | President of General Partner |
| Edward E. Smock..... | Secretary of General Partner |
| Ivan Sweinhart..... | Mine Superintendent |
| George Manhart..... | Mine Foreman |

Total employment at the mine is 31 miners. The mine normally works a staggered production schedule. One week, four 10 hour shifts are worked Monday through Thursday, and one 8 hour shift on Friday. The following week, four 10 hour production shifts are worked Monday through Thursday. One maintenance shift, comprised of three miners, works throughout the mine from 9:00 p.m. to 7:00 a.m., Sunday through Thursday. The average coal production for the last four quarters was 35,742 tons per quarter. Miners enter the mine through a 1,100 foot rock tunnel which provides access to the vein being mined. Transportation of the miners is accomplished with battery-powered, rubber-tired, self-propelled personnel carriers.

At the time of the accident, the mine operated two retreat continuous miner sections, 003-0 and 004-0, and one conventional slope development section, 005-0. Two continuous Lee Norse mining machines, Model HH 265, are utilized in the 003-0 and 004-0 working sections. The mined coal is hauled with Joy 21-SC

shuttle cars to Stamler feeders and transported to the surface on belt conveyors. Roof control in the continuous mining sections is achieved with M-83 Mid Western jack leg drills. Jennmar 36-inch X 5/8-inch diameter roof bolts with mechanical anchors and bearing plates are installed on 5-foot centers for permanent support. Screw type extension jacks or timbers are provided for use as temporary supports when installing the roof bolts. Roof control in the development of the inside slope is either roof bolts or timbers. Roof bolting procedures are the same as in the continuous mining sections. The geological conditions dictate whether posts or roof bolts will be the primary support as the slope is advanced. The roof control base plan was approved on June 6, 2001.

The last MSHA Regular Safety and Health Inspection (E01) of this mine was started on April 16, 2008 and completed on June 17, 2008. The on-site inspection was completed on June 12, 2008. The 2008 non-fatal day's lost (NFDL) incidence rate for this mine was 22.84. The national average for mines of this type was 2.35.

DESCRIPTION OF ACCIDENT

Section 003-0 was in retreat mining status at the Harmony Mine when the fatal accident occurred. Retreat mining was completed on the west side of the section, and the Lee Norse model HH 265-2 continuous miner was trammed to the southeast end of the section on Thursday, June 12, 2008. On Friday, June 13, 2008, the move had been completed and mining commenced. Coal was extracted from the solid barrier pillar on the right side of the No. 1 southeast entry between No. 7 and No. 8 crosscuts. The initial coal cut taken was 11 feet wide x 5 feet high x 47 feet long. After taking the cut, the continuous miner was backed up and parked for the weekend in the No. 7 crosscut between No. 2 and No. 3 entries.

On Monday, June 16, 2008, at 4:00 a.m., Acting Section Foreman Carey (victim) traveled underground via battery powered jeep to conduct the pre-shift examination of the 003-0 section. The results of the pre-shift examination were called out to the surface at 5:35 a.m. Tom Schaeffer (surface utility man) received the call and recorded the results in the pre-shift log book; no discrepancies were noted.

At approximately 6:00 a.m., the 003-0 section crew consisting of five miners traveled underground to the section via battery-powered, rubber-tired personnel carrier. Upon arriving at the section the miners met with Carey, who instructed the miners on their work assignments.

Before moving the continuous miner to the working face, Carey and Oliveri (continuous miner operator) placed four wooden posts at the previously cut coal face, approximately 47 feet inby the last permanent roof supports. They apparently believed the posts would prevent a roof fall. Oliveri then trammed the continuous miner to the previously mined cut taken on Friday, June 13, 2008.

On the following Monday morning, another cut to the left of the same face was mined 11 feet wide, 5 feet high and approximately 47 feet past the last permanent roof supports. After completing this cut, the continuous miner was backed out of the entry. Carey, Oliveri and Justin Renninger (continuous miner helper) traveled inby the last permanent roof supports to set four more posts at the face. Carey then conducted an on-shift examination of the area. Dates, times and initials were observed on a wooden post inby the last permanent roof supports. Carey observed an adverse roof condition (a roll in the roof). He told Oliveri to clean up the loose coal to the left of the previous cut by loading it into a shuttle car, and then they would timber the area where the roll was present.

At approximately 9:20 a.m., Oliveri went to the miner. He asked Carey, located at the right coal rib, about 16 feet inby the last permanent supports, if he was OK where he was standing. Oliveri asked Carey because of the presence of the roof roll. Carey answered that he was "all right." Oliveri began loading the shuttle car with the continuous miner. The shuttle car was not completely loaded when Oliveri was instructed by Carey to take a partial cut off the left solid pillar line to complete loading of the shuttle car. Oliveri started the cut on the pillar line when a section of the roof collapsed. The roof fall was approximately 30 feet wide, 20 feet long and 4 inches to 4 feet thick. The fall covered the front of the continuous miner, extending the width of the entry, pinning Carey against the coal rib.

Jay Reicheldorfer (shuttle car operator) said the shuttle car was about half full when he heard a loud thump and heard Oliveri yelling for help. Oliveri shut off the continuous miner and heard Carey shouting, "I'm hurt! I'm hurt!" Oliveri and Renninger started clearing the fallen rock from Carey. Reicheldorfer traveled toward the power center and ran into Mine Foreman George Manhart. Reicheldorfer told Manhart to get help because an accident had occurred. Reicheldorfer continued to the power center, where he retrieved the first-aid kit and ran back to the accident scene. When Carey was removed from the rock fall, CPR was administered. Carey was transported to the surface via personnel carrier. Upon arrival on the surface, medical treatment was administered. Carey was pronounced dead at 11:06 a.m. by Geisinger Medical EMS personnel (Dr. Thomas Payton and Nurse Daniel Kelly).

INVESTIGATION OF ACCIDENT

On June 16, 2008, at 10:03 a.m., the Mine Safety and Health Administration (MSHA) National Call Center received notification that a serious accident had occurred at UAE Coalcorp, Harmony Mine. John A. Kuzar, District Manager for Coal Mine Safety and Health District 1, was notified of the accident at 10:10 a.m.

MSHA personnel were immediately dispatched to the mine. Coal Mine Inspector George J. McIntyre was the first MSHA person to arrive at the mine and immediately issued a verbal 103 (k) order to Mine Superintendent Ivan Sweinhart to insure the safety of all persons involved in the accident investigation. Sweinhart stated that Bob Carey, victim, was being treated and would be transported via Mt. Carmel Ambulance to a local hospital. Sweinhart also stated that all of the miners were on the surface. McIntyre instructed Sweinhart to keep all miners at the site so interviews could be conducted.

McIntyre then went to the Mt. Carmel Ambulance and spoke to Daniel Kelly, Geisinger Life Flight Paramedic/Nurse, who stated that Carey had been pronounced dead at 11:06 a.m. Upon arrival of all the MSHA personnel to the mine, the accident investigation was immediately started. The investigation was conducted in cooperation with MSHA Technical Support personnel, the Pennsylvania Bureau of Deep Mine Safety, with the assistance of the mine operator and mine employees. Persons who participated in the accident investigation can be found in Appendix A. The accident scene was photographed, sketched, and interviews were conducted. Thirteen persons were interviewed during the investigation. On June 26, 2008, the onsite portion of the accident investigation was completed.

DISCUSSION

Roof Control Plan and Mining Sequence

On Thursday afternoon, June 12, 2008, Sweinhart took Carey to the southeast end of the 003-0 section, and they discussed the mining sequence and where to start mining. Sweinhart did not return to this section until after the accident on Monday, June 16, 2008.

The provisions of the approved roof control plan, dated June 6, 2001, stated on page 14 (Appendix F):

1. *"Personnel Location" statement 1: All persons shall be in a safe location during this secondary mining operation.* This provision was violated by the victim

positioning himself along the east end of the solid pillar line, approximately 16 feet inby the last permanent roof support (please refer to drawing of the accident scene on page 3). He positioned himself at this location prior to the mining of the third cut.

The provisions of the approved roof control plan stated on page 15 (Appendix F):

1. *"Pillar removal precautions" statement 1: The miner operator shall not advance the controls of the continuous miner inby the last row of permanent supports."*

This provision was violated by the continuous miner operator advancing approximately 27 feet inby the last row of permanent roof support. He advanced beyond permanent roof support during the initial and the second cuts of coal.

2. *"Pillar removal precautions" statements 3-5: Turn posts shall be set at location[s] prior to starting lifts No. 1 through No. 3."* These provisions were violated by turn posts not being provided for the three lifts that were mined. Four turn posts per lift are shown on drawing number 5, (page 21).

Geologic Conditions

Coal at the Harmony Mine was being extracted from the No. 2 Lykens Vein. The mining area, situated along the crest of an anticline (an upward fold in layers of rock), extends approximately 12,000 feet in a northeasterly-southwesterly orientation along the crest. The anticline dips at approximately 2.5% grade to the southwest. Overburden ranges from 200 feet to a maximum of about 240 feet. Most of the main roof consists of conglomerate rock.

The roof, floor and seam height are highly irregular. Coal height varies from 2 feet to 7 feet in short, intermittent distances. The roof and floor generally consist of hard massive conglomerate.

Roof lithology (composition) had changed in the area of the accident from conglomerate to very hard, dark grey shale with a slickenside upper surface. The roof fall varied in thickness from 4 inches on the outby end of the fall to an estimated 4 feet on the inby end.

Examinations

On June 16, 2008, the day of the fatal accident, Carey reported on the preshift examination record that his examination was conducted from 4:00 a.m. to 5:30

a.m. The report was phoned to the outside by Carey at 5:35 a.m. to Tom Schaeffer (surface utility man), who recorded the report. Under the sub-title "Violations and Other Hazardous Conditions Observed and Reported", Carey reported "None" at the working section. Carey reported beneath the sub-title "Remarks: "Everything ok-air is traveling in correct direction."

Training and Experience

The operator's training plan and training activities were reviewed as it pertained to the approved Roof Control Plan and how retreat mining (pillaring) was to be conducted. During interviews with miners and mine supervisors it was stated that during the last annual refresher retraining, miners were trained on how the pillars were to be removed. Miners were also given a copy of the pillaring plan. When miners and mine supervisors were interviewed, they knew about the pillaring plan. Miners also stated that going in by the last permanent roof support was not a practice at the mine. All miners and supervisors working at the mine were at the last retraining session. Carey had a total of 9 years, 13 weeks, and 1 day of mining experience. According to the mine operator's training records, Carey had attended the required training sessions.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the underlying cause of the accident that was correctable through reasonable management controls. Listed below are root causes identified during the analysis and the corresponding corrective actions implemented to prevent a recurrence of the accident.

Root Cause: Acting Section Foreman Carey was violating the provisions of the MSHA approved Roof Control Plan and directing miners to do the same.

Corrective Action: A day long meeting, monitored by MSHA and Pennsylvania D.E.P Bureau of Mine Safety was held with all miners and supervision personnel at the mine. The objective of the meeting was to review and discuss the newly revised roof control plan, which included sequential steps for retreat mining.

Root Cause: The Mine Superintendent instructed the Acting Section Foreman where to start mining after the continuous miner was moved to another area on the section, but did not follow-up to observe mining and conditions after mining was started.

Corrective Action: The Mine Superintendent and General Mine Foreman were instructed to observe mining conditions as soon as practicable when a new section or retreat mining area is changed to a different location.

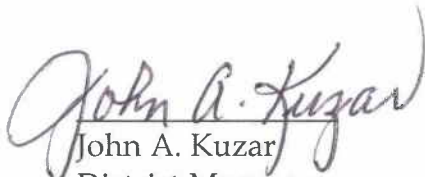
Root Cause: The operator did not have effective policies or procedures in place to ensure adequate examinations were conducted to identify and correct hazardous conditions. Robert Carey, Acting Section Foreman and Preshift and Onshift Examiner of the mine, either did not recognize the hazardous conditions that were present during his examinations or chose to ignore them. On June 16, 2008, during the retreat mining of section 003-0, No. 1 southeast entry between No. 7 and No. 8 crosscuts, miners were performing retreat mining, and were exposed to the dangerous roof conditions.

Corrective Actions: The hazardous conditions were discussed with the mine operator. The Mine Superintendent and General Mine Foreman were instructed to observe mining conditions as soon as practicable when a new section or retreat mining area is changed to a different location.

CONCLUSION

Acting Section Foreman Robert Carey was conducting retreat mining in the MMU 003-0 working section, and was violating the MSHA Approved Roof Control Plan. Carey instructed the continuous miner operator to begin taking a cut of coal off the west end of the solid pillar line when the roof collapsed, resulting in fatal injuries to Carey. Carey was positioned about 16 feet in by the last row of permanent roof supports, along the high side rib at the east end of the solid pillar line, when the fall occurred. The area where Carey had positioned himself was previously pillared three days prior to the accident. Carey had observed an adverse roof condition in this area, but allowed mining to continue without installing the required proper roof supports or discontinuing mining in this area. Also, hazardous conditions were either not recognized or ignored during workplace examinations. The accident resulted from failure to follow proper mining practices, procedures, and applicable regulations.

Approved By:


John A. Kuzar
District Manager

03/11/09
Date

ENFORCEMENT ACTIONS

1. A 103(k) Order, No. 7010752 was issued on June 6, 2008, to ensure the safety of miners until the investigation could be completed.

Condition or Practice: "The mine has experienced a fatal roof fall accident in Section 003-0. This Order is issued to ensure the safety of any person in the coal mine until an examination or investigation is made to determine that the entire mine is safe. Only those persons selected from company officials, state officials, the miner's representative and other persons deemed by MSHA to have information relevant to the investigation may remain in the affected area."

2. A 104(d)(1) Citation, No. 7010753, was issued for a violation of 30 CFR 75.220(a)(1).

Condition or Practice: "The approved roof control plan dated June 6, 2001 was not being followed. Page 14, Personnel Location, Item No. 1 states: "All persons shall be in a safe place during this secondary mining operation." On Monday, June, 16, 2008, Robert Carey, Acting Section Foreman, positioned himself 16 feet in by the last permanent roof support in the No. 1 southeast entry between No. 7 and 8 crosscut at the MMU 003-0 retreat mining section. The Lee Norse 265 miner began cutting coal from the left pillar line, when moments later, a large roof fall occurred, pinning Carey against the high side coal rib, causing fatal injuries. The accident investigation revealed Carey knew there was an unsupported roll in the roof. Acting Section Foreman Carey engaged in more than ordinary negligence when he told the miner operator to cut coal while he (Carey) positioned himself under the unsupported roof. This violation is an unwarrantable failure to comply with a mandatory safety standard. Carey's action contributed to the fatal accident that occurred on June 16, 2008. This condition was observed on June 17, 2008. Additionally this action is a violation of CFR 75.202(b)."

3. A 104(d)(1) Order, No. 7010754, was issued for a violation of 30 CFR 75.220(a)(1).

Condition or Practice: "A fatal accident occurred on June 16, 2008. The location of the accident was retreat mining section 003-0, No. 1 southeast entry between No. 7 and 8 crosscuts. The accident investigation revealed the deepest point of penetration from the last permanent roof support was

approximately 47 feet. This is a violation of the mine's roof control plan approved on June 6, 2001. Page 15, pillar removal precautions – solid rib and pillar states: “The miner operator shall not advance the controls of the continuous miner in by the last permanent roof supports. Individual cuts to be taken the width of the miner's head, approximately 11 feet, with standing coal between the cuts. The mining being conducted was at a cut depth of up to approximately 47 feet in the solid. The width of the cut was fanning right to left creating a width of approximately 34 feet in the affected area. This resulted in the de-stabilization of the roof, causing the roof to fall. Acting Section Foreman Robert Carey engaged in aggravated conduct constituting more than ordinary negligence when he knew adverse conditions existed in the area being mined and that the mining performed was not done in accordance with the approved roof control plan. This violation is an unwarrantable failure to comply with a mandatory safety standard. This action contributed to the fatal accident that occurred on June 16, 2008. This condition was observed on June 17, 2008.”

4. A 104(d)(1) Order, No. 7010755, was issued for a violation of 75. 220(a)(1).

Condition or Practice: “A fatal accident occurred at this mine on June 16, 2008. The location of the accident was retreat mining section 003-0, No.1 southeast entry between No. 7 and 8 crosscut. During the accident investigation it was observed the approved roof control plan, dated June 6, 2001, was not being followed. Page 15, pillar removal precautions – solid rib and pillar states: “Turn posts shall be set prior to starting lift No.1 (first coal cut).” The required turn posts were not installed. Acting Section Foreman Robert Carey engaged in aggravated conduct constituting more than ordinary negligence allowing the miner operator to cut coal from the solid rib before installing the required breaker and turn posts. This violation is an unwarrantable failure to comply with a mandatory safety standard. This action contributed to the fatal accident that occurred on June 16, 2008. This condition was observed on June 17, 2008.”

5. A 104(d)(1) Order, No. 4370149, was issued for a violation of 75.360(b)(3).

Condition or Practice: “The certified person (Acting Section Foreman Robert Carey) responsible for conducting a pre-shift examination of the retreat mining section 003-0 on Monday, June 16, 2008, called out to the surface, via mine phone at 5:35 a.m. and failed to call out the hazardous conditions which existed and which he had observed. The certified person knowingly falsified the pre-shift examination by calling out that no

hazardous conditions or other problems were found. As a result, no hazardous conditions or other problems were stated in the record pre-shift/on-shift examination book. Under remarks on June 16, 2008 it states: "Everything OK - Air is traveling in the correct direction." The accident investigation revealed on Friday, June 13, 2008, that a coal face had been mined approximately 47 feet in by the last permanent roof supports. There was no evidence of either permanent or temporary roof controls established in the extended coal cut. On Monday, June 16, 2008, 8 wooden posts were set at the coal face approximately 47 feet in by the last permanent roof supports without any other type of roof support being established. No ventilation controls were in place when this mining was conducted and there were no ventilation controls established on Monday June 16, 2008. Acting Section Foreman Robert Carey engaged in aggravated conduct constituting more than ordinary negligence when he failed to record the conditions that were present at the time of the pre-shift examination. This is an unwarrantable failure to comply with a mandatory safety standard. Carey's action contributed to the fatal accident that occurred on June 16, 2008. The recordkeeping requirement to record the hazardous condition(s) found during each pre-shift examination is found in 30 CFR 75.360(f). This condition was observed on June 17, 2008."

(Non-Contributory citations/orders were issued during a spot inspection in relationship to the fatal accident investigation.)

APPENDIX A - Persons Participating in the Investigation

Harmony Mine UAE Coalcorp – Company Personnel

Ivan F. Sweinhart.....Mine Superintendent
George W. Manhart.....General Mine Foreman
Michael Scopelliti.....Chief Electrician
Matthew J. Olivieri.....Continuous Miner Operator
Jason D. Reichelderfer.....Shuttle Car Operator
John L. Thorton.....Shuttle Car Operator
Lewis W. Graver.....Section Mechanic
Justin Renninger.....Continuous Miner Helper
Greg Yurchak.....Miner
David L. Dietter.....Mechanic/Electrician
David K. Reightler.....Mechanic
David Carduff.....Mechanic
Dennis Reightler.....Section Foreman (004-0)

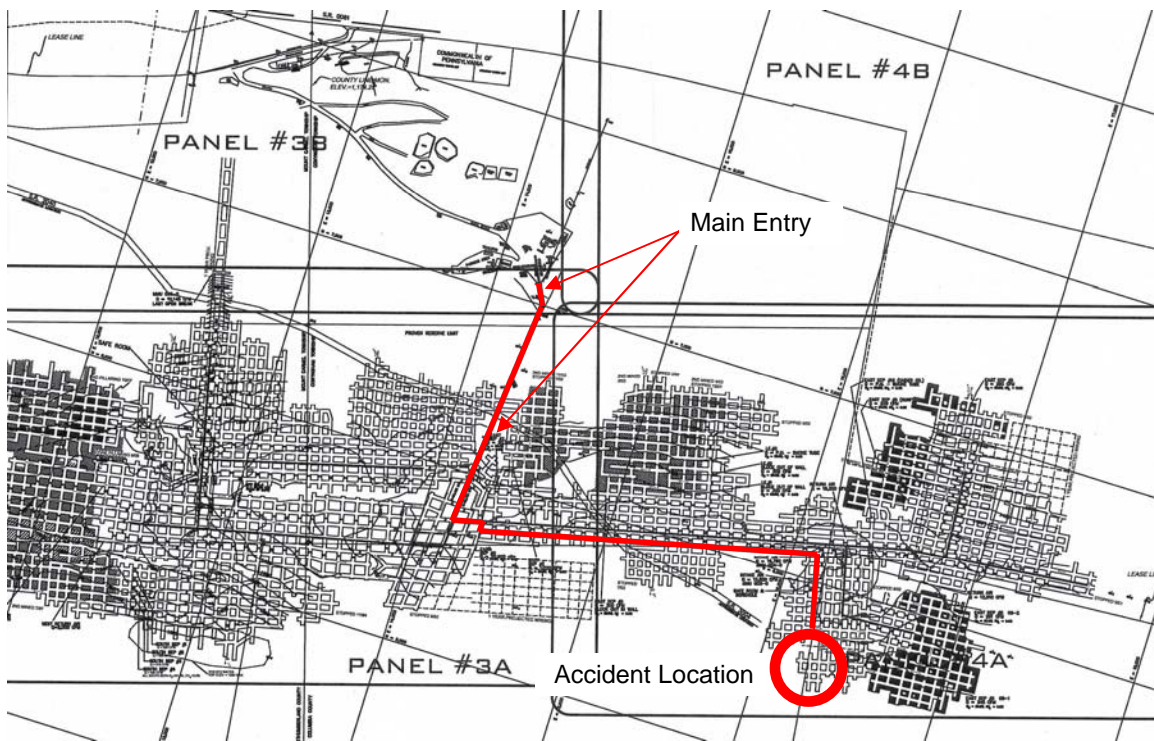
Pennsylvania D.E.P. Bureau of Mine Safety

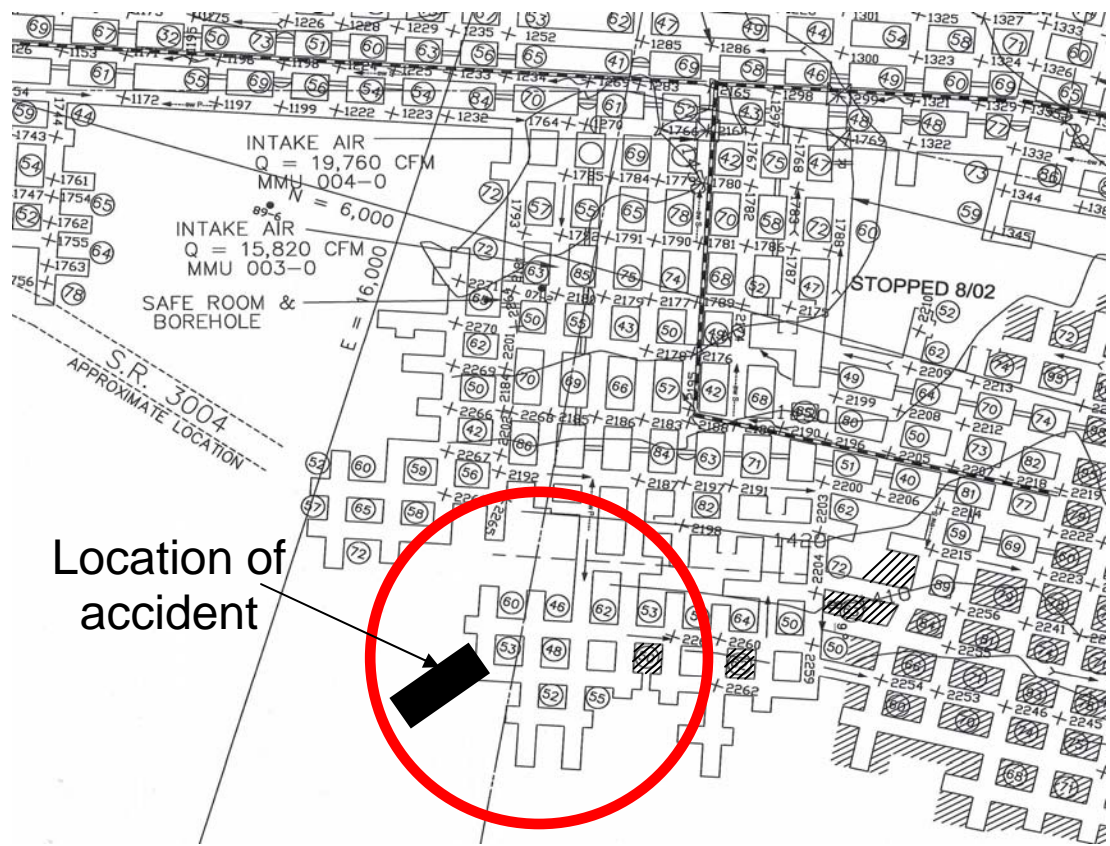
Joseph A. Sbaffoni.....Director
Troy Wolfgang.....Deep Mine Safety Director
Steve GeistAnthracite Underground Mine Insp.
Terry Wolfgang.....Anthracite Underground Mine Insp.
Glenn Bensinger.....Anthracite Underground Mine Insp.
David Williams, P.E.....Mining Engineer

Mine Safety and Health Administration

William D. Sparvieri.....Assistant District Manager
George J. McIntyre.....Mine Safety and Health Inspector / Lead Investigator
Thomas Garcia.....Supervisory Roof Control and Ventilation
Dennis Herring.....Mine Safety and Health Inspector
Greg Mehalchick.....Civil Engineer
James G. Vadnal.....Engineer – Technical Support

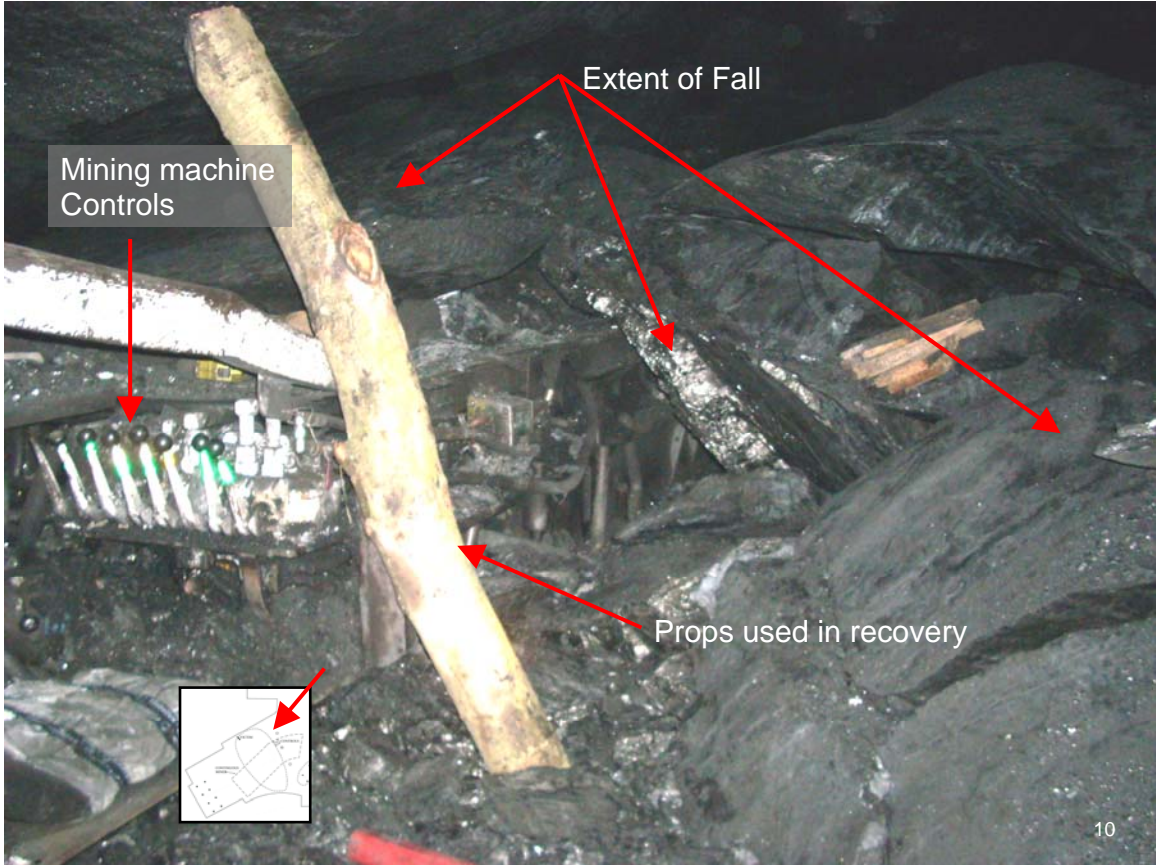
APPENDIX B - Map Location of the Accident Scene

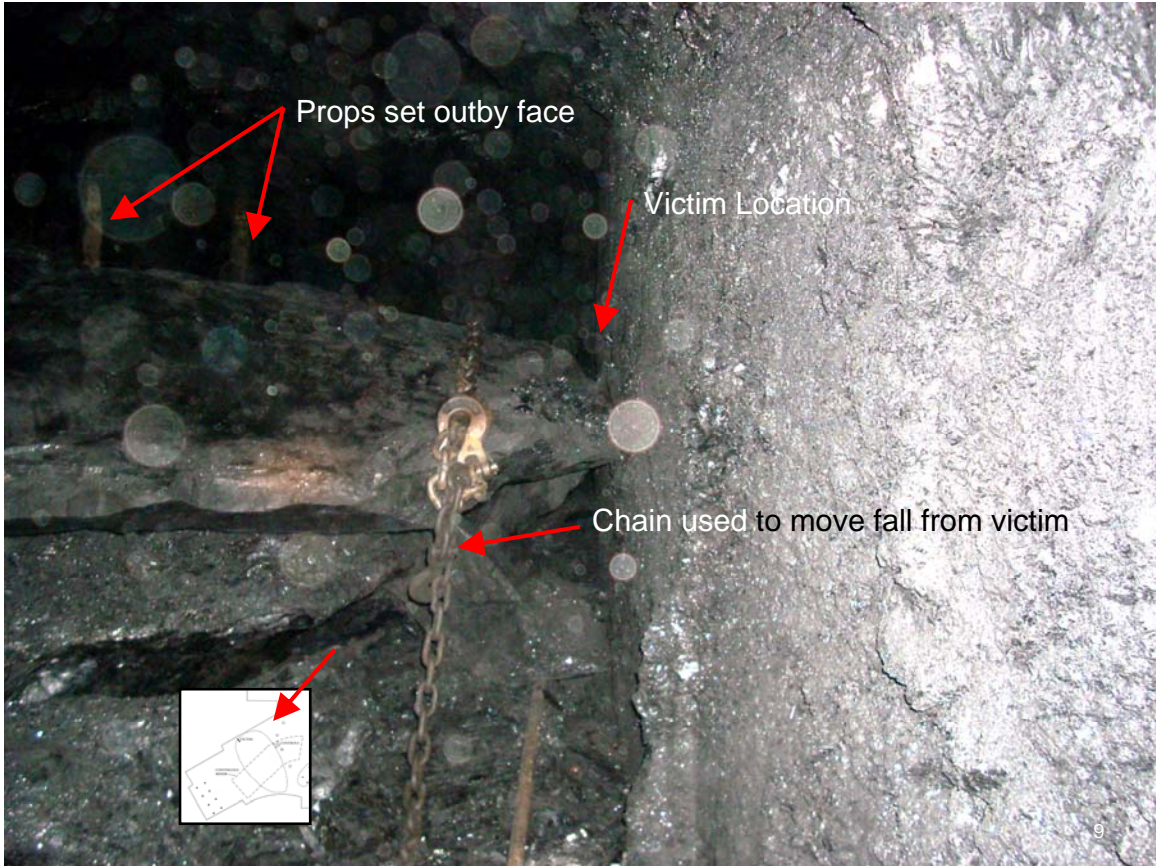




APPENDIX C - Photographs of the Accident Scene







APPENDIX D - Victim's information

Accident Investigation Data - Victim Information

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



Event Number: 4 3 0 4 0 3 0

Victim Information: 1

| | | | | | | | | | | | | | | | |
|---|----------|---------------------|---|---|--|-----------|----------|--|----------|-----------|----------|----------|----------|-----------|----------|
| 1. Name of Injured/III Employee: <i>Robert W. Carey</i> | | 2. Sex: <i>M</i> | 3. Victim's Age: <i>45</i> | 4. Last Four Digits of SSN: <i>4905</i> | 5. Degree of Injury: <i>01 Fatal</i> | | | | | | | | | | |
| 6. Date(MM/DD/YY) and Time(24 Hr.) Of Death: <i>a. Date: 06/16/2008 b. Time: 9:20</i> | | | | 7. Date and Time Started: <i>a. Date: 06/16/2008 b. Time: 4:30</i> | | | | | | | | | | | |
| 8. Regular Job Title: <i>046 Roof bolter single head</i> | | | 9. Work Activity when Injured: <i>087 Supervise (not simply observe operation)</i> | | 10. Was this work activity part of regular job? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | | | | | | |
| 11. Experience a. This | Years | Weeks | Days | b. Regular | Years | Weeks | Days | c. This | Years | Weeks | Days | d. Total | Years | Weeks | Days |
| Work Activity: | <i>0</i> | <i>11</i> | <i>3</i> | Job Title: | <i>9</i> | <i>13</i> | <i>1</i> | Mine: | <i>9</i> | <i>13</i> | <i>1</i> | Mining: | <i>9</i> | <i>13</i> | <i>1</i> |
| 12. What Directly Inflicted Injury or Illness? <i>090 Caving rock/coal</i> | | | | | | | | 13. Nature of Injury or Illness: <i>170 Crushing</i> | | | | | | | |
| 14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 15. Company of Employment: (If different from production operator) <i>Operator</i> | | | | | | | | Independent Contractor ID: (if applicable) | | | | | | | |
| 16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input checked="" type="checkbox"/> CPR: <input checked="" type="checkbox"/> EMT: <input checked="" type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 17. Part 50 Document Control Number: (form 7000-1) | | | | | | | | 18. Union Affiliation of Victim: <i>9999 None (No Union Affiliation)</i> | | | | | | | |

Victim Information:

| | | | | | | | | | | | | | | | |
|--|-------|---------|--------------------------------|-----------------------------|---|-------|------|--|-------|------|------|----------|-------|-------|------|
| 1. Name of Injured/III 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? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | |
| 11. Experience: a. This | Years | Weeks | Days | b. Regular | Years | Weeks | Days | c. This | Years | Week | Days | d. Total | Years | Weeks | Days |
| Work Activity: | | | | Job Title: | | | | Mine: | | | | Mining: | | | |
| 12. What Directly Inflicted Injury or Illness? | | | | | | | | 13. Nature of Injury or Illness: | | | | | | | |
| 14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 15. Company of Employment: (If different from production operator) | | | | | | | | Independent Contractor ID: (if applicable) | | | | | | | |
| 16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 17. Part 50 Document Control Number: (form 7000-1) | | | | | | | | 18. Union Affiliation of Victim: | | | | | | | |

Victim Information:

| | | | | | | | | | | | | | | | |
|--|-------|---------|--------------------------------|-----------------------------|---|-------|------|--|-------|------|------|----------|-------|-------|------|
| 1. Name of Injured/III 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? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | |
| 11. Experience: a. This | Years | Weeks | Days | b. Regular | Years | Weeks | Days | c. This | Years | Week | Days | d. Total | Years | Weeks | Days |
| Work Activity: | | | | Job Title: | | | | Mine: | | | | Mining: | | | |
| 12. What Directly Inflicted Injury or Illness? | | | | | | | | 13. Nature of Injury or Illness: | | | | | | | |
| 14. Training Deficiencies: Hazard: <input type="checkbox"/> New/Newly-Employed Experienced Miner: <input type="checkbox"/> Annual: <input type="checkbox"/> Task: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 15. Company of Employment: (If different from production operator) | | | | | | | | Independent Contractor ID: (if applicable) | | | | | | | |
| 16. On-site Emergency Medical Treatment: Not Applicable: <input type="checkbox"/> First-Aid: <input type="checkbox"/> CPR: <input type="checkbox"/> EMT: <input type="checkbox"/> Medical Professional: <input type="checkbox"/> None: <input type="checkbox"/> | | | | | | | | | | | | | | | |
| 17. Part 50 Document Control Number: (form 7000-1) | | | | | | | | 18. Union Affiliation of Victim: | | | | | | | |

APPENDIX E – Pertinent Sections of Approved Roof Control Plan

(k) Where rehabilitation work is being performed, one plan posted at the dumping point or section bulletin board will suffice. Where massive-type falls are encountered, a separate plan must be made and posted at each fall site.

SPOT BOLTING

Areas that require additional bolting out-by the immediate working faces will be spot bolted. The bolting devices to be used for spot bolting will be one of the approved bolts as found on pages two, three, and four.

PILLAR EXTRACTION

Mining Sequence

1. Pillars will be extracted from right to left during normal mining operations.
2. No mining will begin in any entry, until the immediate preceding pillar has been completed with the exception of cut #6 as shown on pillar extraction drawings.
3. During excessive idle periods, all equipment will be moved back to the next line of pillars.

Personnel Location

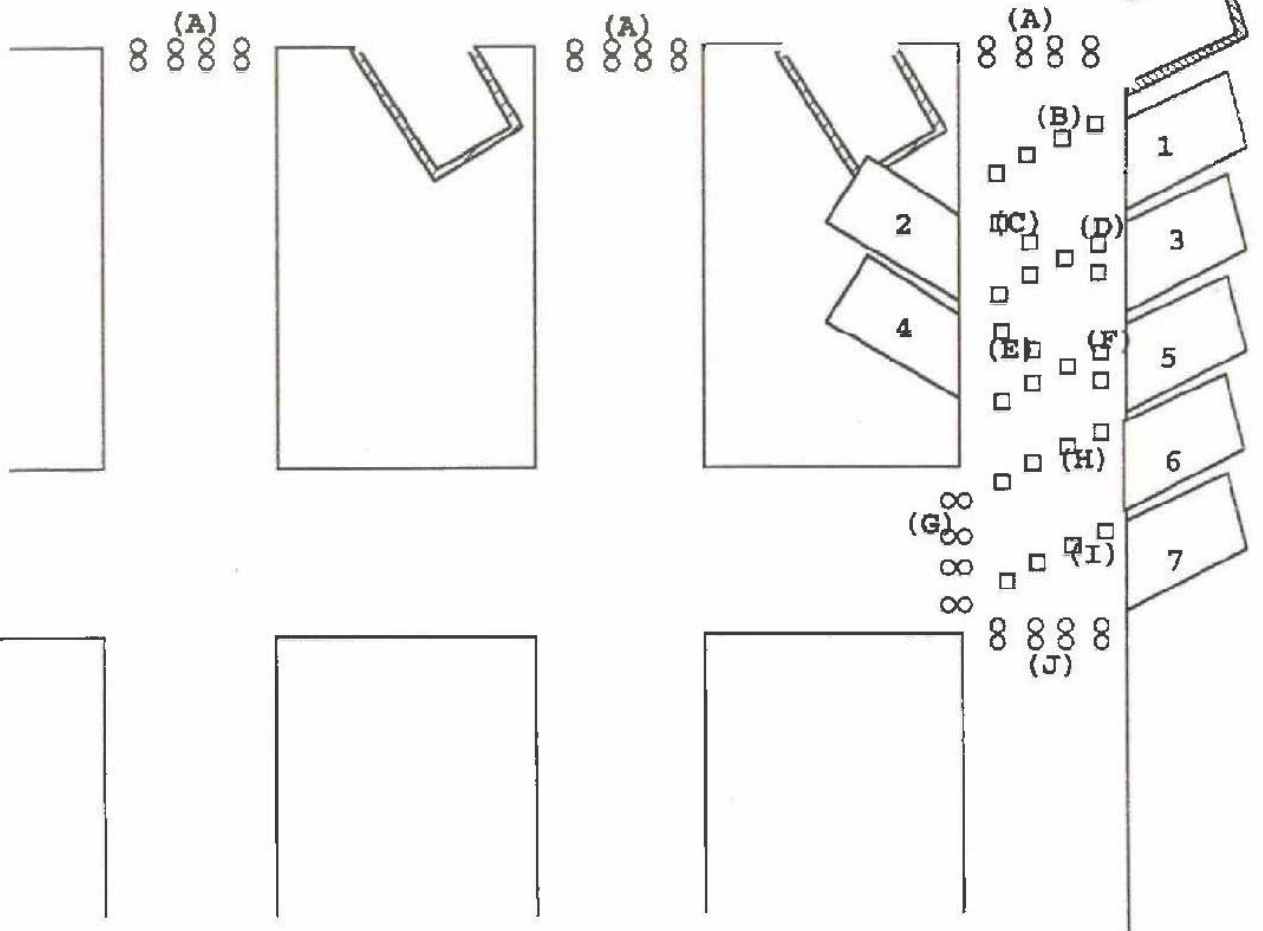
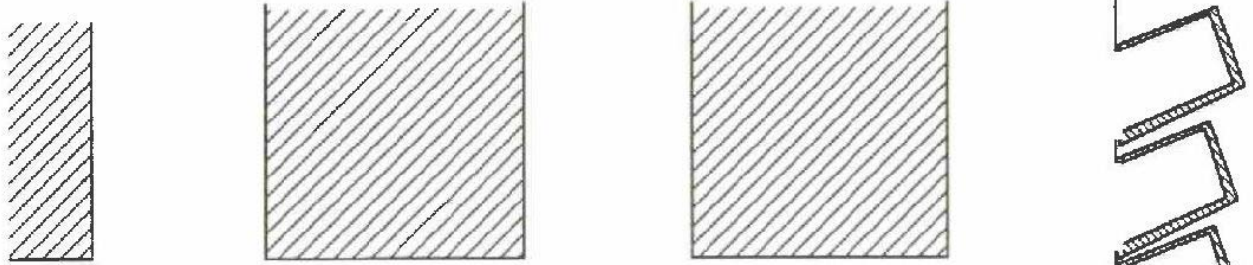
1. All persons shall be in a safe location during this secondary mining operation.
2. No person shall work or travel inby the last line of breaker posts where full or partial pillaring has been formed.
3. The continuous miner operator may use the radio remote control unit to operate the continuous miner during pillar recovery. However, the miner operator shall not advance the controls of the continuous miner inby the last row of permanent roof supports even with the remote unit.
4. No person shall advance inby the continuous miner while pillaring operations are being performed.

Pillar Removal Precautions - Solid Rib & Pillar (See attached drawing)

1. The miner operator shall not advance the controls of the continuous miner inby the last row of permanent supports.
2. A minimum of eight (8) breaker posts will have been installed at locations (A) from inby pillaring operations.
3. Turn posts shall be set at location (B) prior to starting lift #1.
4. Turn posts shall be set at location (C) prior to starting lift #2.
5. Turn posts shall be set at location (D) prior to starting lift #3.
6. Turn posts shall be set at location (E) prior to starting lift #4.
7. Turn posts shall be set at location (F) prior to starting lift #5.
8. A minimum of eight (8) breaker posts will be set at location (G) after lift #5 is completed.
9. Turn posts shall be set at location (H) prior to starting lift #6.
10. Turn posts shall be set at location (I) prior to starting lift #7.
11. Immediately after completing lift #7 a minimum of eight (8) breaker posts will be set at location (J).
12. A barrier of two feet (2') will be attempted to be maintained between pillar lifts.

Note: Any pillar lift may be dropped or passed should subnormal roof conditions arise that may be relative to the safety of miners.

DRAWING No. 5
 Pillar Extraction
 Solid Rib & Pillar



LEGEND: ○ BREAKER POST
 □ TURN POST

SCALE: 1" = 20'