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COAL NONFATAL

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

District 9

REPORT OF INVESTIGATION
(Underground Coal Mine)

NONINJURY COAL MINE OUTBURST (BOUNCE) ACCIDENT

L. S. Wood Mine (ID No. 05-00300)
Mid-Continent Resources, Inc.
Redstone, Pitkin County, Colorado

September 16, 1980

by

Lee H. Smith
Coal Mine Inspector

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Originating Office - Mine Safety and Health Administration
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Jensen L. Bishop, Subdistrict Manager

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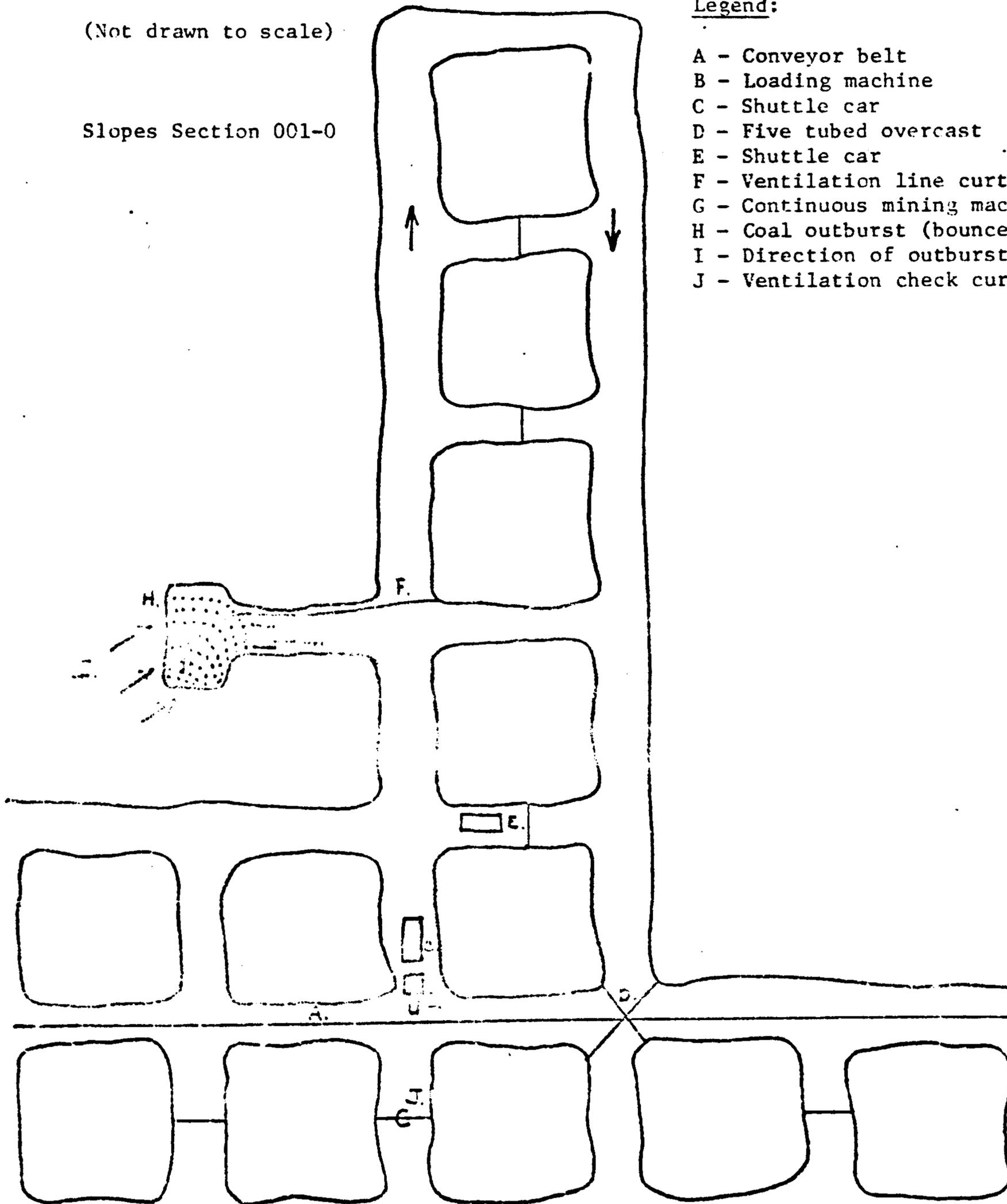
1980

(Not drawn to scale)

Slopes Section 001-0

Legend:

- A - Conveyor belt
- B - Loading machine
- C - Shuttle car
- D - Five tubed overcast
- E - Shuttle car
- F - Ventilation line curtain
- G - Continuous mining machine
- H - Coal outburst (bounce)
- I - Direction of outburst
- J - Ventilation check curtain



Report of Underground Coal Mine Investigation
Noninjury Coal Mine Outburst (Bounce) Accident
L. S. Wood Mine (ID No. 05-00300)
Mid-Continent Resources, Inc.

Abstract of Investigation

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



Authority —

This report is based on an investigation made pursuant to the Federal Mine Safety and Health Act of 1977, Public Law 95-173, as amended by Public Law 96-104.

SECTION ONE - GENERAL INFORMATION	
1. Title of investigation: <u>Noninjury Outburst</u>	(Bounce)
2. Date MSHA investigation started: <u>09/16/80</u>	
3. Report release date: <u>09/30/80</u>	
4. Mine: <u>L. S. Wood</u>	
5. Mine ID number: <u>05-00300</u>	
6. Company: <u>Mid-Continent Resources, Inc.</u>	
7. Town, County, State: <u>Redstone, Pitkin Co., CO</u>	
8. Author(s): <u>Lee H. Smith</u>	

SECTION TWO - PRODUCTION INFORMATION	
9. Daily production: <u>1,345 Tons</u>	
10. Surface employment: <u>6</u>	
11. Underground employment: <u>101</u>	
12. Name of coalbed: <u>Coal Basin "B"</u>	
13. Thickness of coalbed: <u>84"</u>	

SECTION THREE - MINE SAFETY AND HEALTH INFORMATION	
Coal Mine Health and Safety District No.: <u>7</u>	

SECTION FOUR - TRAINING INFORMATION	
14. Industry: <u>11.50</u>	
15. This operation: <u>18.95</u>	
16. Training program approved: <u>Yes</u>	
17. Training program agency: <u>7-1</u>	

On Tuesday, September 16, 1980, at 9:30 a.m., an outburst of coal (bounce) occurred in the 001-0 slopes section of Mid-Continent Resources, Inc.'s L. S. Wood Mine. The outburst occurred while the mining crew was attempting to install posts in the working face in the No. 4 slope. The accident occurred because of the overburden which is an excess of 2,000 feet in thickness and exerts extreme pressure on the coalbed. No personal injury was suffered.

SECTION FIVE - COMPANY OFFICIALS		
Company officials:	Name	Address
19. President:	John A. Reeves, Sr.	P.O. Box 158, Carbondale, CO 81623
20. Superintendent:	Tom Scott	P.O. Box 158, Carbondale, CO 81623
21. Safety Director:	Ron Henderson	P.O. Box 158, Carbondale, CO 81623
22. Property Manager:	Tom Scott	P.O. Box 158, Carbondale, CO 81623
24. Chairman--M&S Comm. Rec:	Richard Lane	0526 Hwy. 133, Carbondale, CO 81623

Commentary

On Tuesday, September 16, 1980, at 3:00 p.m., the 001-0 slopes section crew under the supervision of section foreman, Dan Mortensen, entered the mine and traveled to the working section arriving about 3:30 p.m. Mortensen conducted an examination of the section and then assigned duties and work locations to the crew. The mining crew began drilling holes in the face of the No. 4 slope in order to volley fire it. After the charge was detonated, an inspection of the face revealed no stress had been relieved. The crew began cleaning up the shot down coal and normal work activities continued until 9:15 p.m. At that time part of the crew began to install posts in the face area while the rest of the crew prepared to drill the face prior to volley firing it again. According to the section foreman, about 9:30 p.m. a sudden, loud noise indicated a bounce was building and the crew ran out of the face area toward the intake air entries and slopes. The noises and vibrations "hit" fifteen or sixteen times resulting in a coal outburst (bounce). The coal outburst blew out of the face and south rib at about a 34° angle burying a portion of the ventilation line curtain. Dan Johnson, loader operator, shut off the section power center as soon as he heard the first loud noise. The methane gas content in the accident scene and immediate return was in excess of 1.5%. After the dust cleared and the section quieted down, Mortenson conducted an inspection of the section, installed some ventilation line curtain, dangled off the accident scene, and then informed his superiors of the occurrence.

Discussion and Evaluation

The investigation revealed the following factors relevant to the outburst:

1. The coal outburst caused the withdrawal of miners and disrupted regular mining activity for more than one hour.
2. The coal outburst affected ventilation.
3. High concentrations of methane gas were liberated during and after the outburst.
4. After the outburst, the width of the crosscut measured 30' 9". The height (roof to floor) measured from 10' 1" to zero in a distance of 18' 5" (toe of the outburst toward the outburst.)
5. The outburst blew out of the face and south rib and stopped just short of the cutter head of the continuous mining machine.
6. The overburden in the slopes section is in excess of 2,000 feet in thickness. Due to this natural condition, extreme pressure is exerted on the coalbed which creates severe rib sloughage throughout the section and coal outbursts (bounces) are often experienced during development operations.
7. The last reported and investigated coal outburst was

8. The solid coal face was being relieved of stress by the volley firing method and had been volley fired approximately four hours prior to the outburst according to the section foreman.

Findings of Fact

Evidence and findings of the investigation indicated there were no violations of Title 30 CFR which contributed to the occurrence of the accident. However, a 107(a) order of withdrawal was issued because of the presence of methane gas which was in excess of 1.5%.

Conclusion

The accident occurred because of the overburden which is in excess of 2000 feet in thickness and exerts extreme pressure on the coalbed.

Respectfully submitted,


Lee H. Smith
Coal Mine Inspector

Approved by:

Jensen L. Bishop
Subdistrict Manager

APPENDIX

The investigation was conducted by the Mine Safety and Health Administration and those persons present during the investigation were:

Mid-Continent Resources, Inc. Officials

Tom Scott	Superintendent
George Small	Mine Foreman
Dewey King	Section Foreman
Dan Mortensen	Section Foreman

Mid-Continent Resources, Inc. Employees

Dennis Brown	Representative of the Miners
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Mine Safety and Health Administration

Lee H. Smith	Coal Mine Inspector
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