

EXPLOSION AT WOODWARD COLLIERY.

REPORT OF INSPECTOR D. T. DAVIS, TWELFTH DISTRICT

August 8, 1916, an explosion of gas occurred at Woodward Colliery, No. 3 Shaft, No. 26 Slope, Hillman vein, of the Delaware, Lackawanna and Western Railroad Company, by which 6 persons were killed.

No. 3 Shaft is sunk to the Baltimore vein at a depth of 815 feet and penetrates the vein on the Southrise.

The Hillman vein development is principally in No. 26 Slope, pitching from 12 degrees at the head of the slope and varying to almost level at other parts. The development is proceeding very rapidly. All the work, practically, is double shifted. The seam is known to be very gaseous, and in order to protect life, improved locked safety lamps are used exclusively, and permissible explosives, with their equivalent detonators, are used for blasting and fired by electric batteries.

The great majority of the persons employed at No. 1 East 26 slope, Hillman vein, had quit work for the day after the semi-weekly measurement of their places had been taken, a short time prior to the explosion. If they had remained at work the loss of life would no doubt had been much greater.

Walls and brattices were completely destroyed in this lift. The force of the explosion was so great that it was noticeable to all the workmen in all the other parts of the Hillman vein.

Realizing the danger from after-damp, the men hurried to the shaft. It was evident from the destruction that the fire damp had reached its most explosive point. Concrete walls, 9½ inches in thickness, between the main slope and slope airway, above and below 1st West, where the explosion occurred, were moved out a distance of over three feet, and parts of the walls blown out ranging from three feet four inches to four feet four inches and to seven feet four inches, while walls in close proximity to the lift were blown to atoms. The slope road moved 2 feet from its alignment, and "T" iron rails constituting a portion of the slope road were torn from their fastenings and turned on their sides. Doors were converted into matchwood and scattered in every direction. A trip of empty cars standing several hundred feet above No. 1 West lift on the slope branch was derailed and several cars were thrown across the track. A loaded car was standing a short distance in the lift where the explosion occurred and the rear mule of a team was hooked to the head of the car. The topping and a large portion of fine coal in the car had been blown away and the lead mule was found in the rear of the loaded car. The doorboy, John Litwok, was blown up the slope a distance of 90 feet and probably dashed against the pillar. When his body was found he still held the handle of the door gripped tight in his hand. The bodies of Globoski, a runner, and Hilton, a footman, were found close to where they were engaged at work when the explosion occurred.

There is sufficient evidence to show that the entire atmosphere of No. 1 West gangway had reached a fire-damp mixture of a highly explosive character which, when it ignited, made this passageway a veritable seething furnace.

REPORT OF COMMISSION OF INSPECTORS

We, the undersigned inspectors, at the request of the Chief of the Department, accompanied Inspector D. T. Davis, to the Woodward colliery, No. 3 Shaft, No. 26 Slope, No. 1 West Hillman vein, of the Delaware, Lackawanna and Western Railroad Company, August 8, to investigate the cause of an explosion that had occurred that day. We entered the mine before all the bodies had been removed to the surface, and upon information from the colliery officials that the dead and injured had been removed from the section where the explosion occurred, we proceeded to make an investigation as to the cause of the accident.

When the explosion took place, the main current of air was short circuited, which allowed a large quantity of gas to accumulate in all portions of the slope workings. This gas was rapidly being removed by the use of boards and canvas, that were substituted in place of doors, and walls which had been destroyed by the force of the explosion.

After the gas had been removed we proceeded with our examination, and found that the explosion had taken place in No. 1 West Gangway, No. 26 Slope, Hillman vein. This slope, as shown by the map, is in an early stage of development and is double shifted throughout.

The records of the second assistant foreman in his early morning examination of this date show that he found the slope clear of gas, with the exception of a very small quantity that had accumulated in a crosscut in the lift above from where the explosion occurred. This was removed at 8.00 A. M. and the place made safe.

After our examination had been completed we decided to wait until the slope was placed in its original condition. On September 5, the work of reconstruction had been completed, and on September 6, accompanied by Mr. Henry G. Davis, Efficiency Engineer, Richards Thomas, Superintendent, and William White, Inside Foreman of the Woodward mine, we completed our investigation. We are unanimous in our opinions that the three main doors on the cutoff between the slope and slope airway, No. 1 West, No. 26 Slope, were responsible for the short circuiting of the air current, remaining open for such a length of time as to permit the air in No. 1 West Gangway to reach an explosive condition. As the percentage of gas in the air was gradually increasing, the intensity of the heat, due to the elongation of the flame, shattered the glass of Stanley Puzia's lamp, which permitted the flame to communicate with the external air, thereby causing the explosion.

No open lights are allowed in No. 3 Shaft. The employes working in the Hillman vein use nothing but safety lamps. The lamps used are the Wolf, Koehler and Kramer, with Pyro metal igniters and