## SEVEN LIVES LOST.

## TIDEWATER COAL & COKE COMPANY

Mine Explosion, November 4, 1906, 3 A. M.

Tidewater Mine operates the No. 3, or Pocahontas Coal at Vivian, Mc-Dowell County, the main heading of the mine being advanced 7520 feet from the drift mouth, and going slightly to the dip.

On the night of November 3rd, a crew of six miners, a driver and a pumpman were in the advance workings of the mine, constituting a night shift.

The pumpman was in charge of the electric pump, in a cross cut between the main entry and return air course opposite the sixth cross-entry.

Two men were at work driving a cross cut near the face of the main entry, two in an air course which was being driven toward the King Mine at a point two hundred feet from the face of the main air course.

The driver was in the main entry, having in charge two mules for the purpose of hauling the coal from the miners.

The six miners and the driver, as well as the two mules, were killed by an explosion which occurred at 3 o'clock on the morning of the 4th of November.

The pumpman was uninjured, but was a witness to the strong current and volume of dust generated by the force of the explosion rushing past him.

In the Switchback entry, leading toward the King Mine, at a distance of about 7000 feet from the seat of the explosion, a night force of menfelt the force of the explosion.

The mine was ventilated by means of a force fan stationed on the outside of the mine, and on the sixth cross air course was located an auxiliary Thayer fan, which was used as a booster, operated by electricity, the air through the mine being one continuous current.

After the explosion this booster fan was found to have been badly broken by reason of some boards having been blown into it.

In the ninth and tenth cross entries and at the face of the main entry some explosive gas had been known to be regularly given off. Since no persons were working in the ninth or tenth cross entries on the night of the third, it is quite probable that the door on the main entry, located between the tenth cross entry and the tenth cross air course was left open, thus allowing the ventilation on the tenth cross entries to be cut off and making conditions favorable for the accumulation of explosive gas in these entries.

The doors of the main entry used to divert the air current up the eighth and ninth cross entries also appears to have been open at the time of the explosion.

The condition of a mine with respect to the dryness of the dust is not materially changed by reason of an explosion visiting any part of the mine. An explosive force passing over a portion of a mine where the dust is moist does not render the dust dry by reason of the heat of the

explosion. Observation of a large number of such conditions warrants this statement by the writer.

Upon examining this mine after the explosion it was found that the main entry was dry and dusty for the last 800 feet, the dust being fine coal, resulting from the mining, shooting and handling of the coal.

In the return airway, water had accumulated to within 150 feet of the face of the main air course.

Six loaded cars were wrecked in the main entry, between the ninth cross and the ninth cross air course, and at the mouth of the ninth cross air course a loaded car on the main entry was badly wrecked. The stoppings in the cross cuts between the main entry and the air course were blown out away from the main entry as far back as the eighth cross entries.

On the tenth cross the stoppings were blown toward the tenth cross entry.

The force of the explosion was against the air current at all points where evidence of force existed.

At the face of the main air course it was found that three shots had been fired,—one to the right of the center, which had broken the coal down; a second in the upper left corner, which had blown out, and a third in a "gob hole" immediately to the left, which had broken down some coal, but part of this hole remained in the solid coal. This second hole had been drilled partially into the solid coal near the roof. In the direct line with the second hole and about fifteen feet distant was found an exploded keg.

Within this place was a mine car, undisturbed.

A cross cut connected the main heading with the air course, about ten feet back from the face of the air course, and the props in this cross cut were charred with coal dust on the sides facing the air course, showing that the blown-out shot had exploded the keg of powder and inflamed the fine dry coal dust, which was the medium by which the flame was propagated and carried up the tenth cross air course, and the evidence at hand indicated that a body of gas had been ignited in this tenth cross air course, which exploded and reacted, adding additional force. At the mouth of this tenth cross air course was a pile of iron pipe, part of which had been blown away from the mouth of the air course and across the main heading, one pipe having been blown through a cross cut into the main return air course.

The factors contributing to the explosion were:

First, A blown-out shot.

Second, Explosion of powder in kegs.

Third, Inflaming of coal dust.

Fourth, Ignition of gas.

That there was not sufficient gas present in the face of the main entry or main air course to form an explosion is evident, since the miners had been at work in their places for several hours, and all were using open lamps.

In the opinion of the writer, the disaster was the result of dry coal



dust in the presence of a small percentage of explosive gas being exploded by a blown-out shot, augmented by the powder keg exploding.

Those killed in the explosion appear to have died from the effects of the gases, and not from violence or burns, although one body showed evidence of heat and had some deep burns.

On November 6, 1905, at Vivian, in the presence of Mr. J. R. Greenwalt, a Justice of the Peace for Browns Creek District, McDowell County, S. S. Cooper, Inspector of the Seventh District, and J. W. Paul, Chief Mine Inspector, some evidence was taken for the purpose of ascertaining any and all information that would aid in determining the conditions under which the explosion occurred, and wherein any violation of the mining laws had contributed to the loss of the seven lives, a copy of which evidence is on file in the office of the Department of Mines.

No Coroner's Jury was empaneled and consequently no verdict rendered.

All witnesses of any infraction of the law within the mine, if any, were killed by the explosion; and, while there appeared to have been some doors left open, no positive proof could be had, other than conjecture on the part of those who visited the scene of the disaster after the explosion. Respectfully,

JAMES W. PAUL, Chief Mine Inspector.

December 14, 1905.6

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## SEVEN LIVES LOST — HORTON MINE FIRE.

Deecember 4, 1905, 2 P. M.

CHELYAN, KANAWHA COUNTY, December 30, 1905.

MR. JAMES W. PAUL, Chief Mine Inspector, Charleston, W. Va.

Dear Sir: At your request, I hereby submit to you a brief report of the disaster which occured December 4, 1905, at the Horton Mines, on Cabin Creek and in the Sixth Mining District, belonging to the Cardiff Coal Company, resulting in the death of J. H. Crabtree, Mose Chapman, S. F. Combs, William Vass, John Gowens, Robert Gowens and John Waterson, all white.

These men were in their working places, between one and two o'clock P. M., when the cross timbers in the air course caught fire from the furnace, which was used to ventilate the mine; the fire soon extended to the furnace stack and the wind was very high and drove the smoke into the mine; and, while fighting the fire, some men left the trap door open between the first and second right entries, and this gave the smoke a short course to the outside, and this mine has only one opening except the air course, and the men were forced to come through the smoke to reach the outside; but when they reached the point where the door was left open the smoke seemed to have been very thick and they suffocated before they could reach pure air. Their bodies were found between 75 and 300 feet inside the mine.