

MINE DISASTERS AND MISCELLANEOUS FATAL ACCIDENTS, 1927

REPORT OF THE EXPLOSION AT THE DELAGUA MINE,
MAY 27, 1927

James Dalrymple, State Inspector of Coal Mines,
414 State Office Bldg.,
Denver, Colo.

Dear Sir:

The following is my report on the dust explosion at Delagua No. 3 mine, which occurred at 12:35 p. m., May 27, 1927.

This mine is situated in District No. 2, at Delagua, Las Animas county, Colo., eighteen miles northwest of Trinidad, Colo. The property is operated by the Victor American Fuel Co. of Denver, Colo.

The mine is opened by two slopes in the Raton formation. Character of coal, bituminous; height of coal, five feet.

The mine is ventilated by exhaust fan, double port of entry, delivering approximately 65,000 cubic feet of air per minute, and is ventilated by four separate splits, two of the splits are by over-casts and two by openings to the surface on the inby side of the workings. The mine is worked by open lights and classified as non-gaseous.

There were 132 men in the mine at the time of the explosion. Two were killed instantly, four died from after-damp and one died seven days later from injuries received from the violence of the explosion. See page 66.

I was inspecting this property and was in the office at the time the explosion occurred. I immediately went to the fan house and found that the fan was out of commission, owing to the power lines being destroyed by the blast. Mr. James Struthers, superintendent, arrived, and we had a crew of electricians start repairing the power lines. While the power lines were being repaired we sent six men under the direction of F. Callister, assistant superintendent, to the two openings on the other side of the mine. These openings give access to the 5th and 6th north and Rock Island sections of the mine, where 84 men were working. Mr. Callister was instructed that as soon as ventilation was established to advance with the air current and explore this part of the mine with a view of rescuing the men in there. On arriving at the above mentioned openings, Mr. Callister found conditions normal, with the exception of power and telephone lines, which were cut off. The men were all successfully removed to the surface without casualty.

On the slope side of the mine, while the power lines were being repaired, we had the opening roped off. The following were immediately notified: U. S. Bureau of Mines Rescue car No. 2, Colo-

rado Fuel & Iron Co. rescue car, James Dalrymple, Chief Inspector, and Deputy Inspector Wm. Laurie and George Dalrymple of districts Nos. 1 and 3.

The fan was started twenty minutes after the explosion. Heavy black smoke was rolling from both openings on this side of the mine. The main slope, which is normally the intake, looked like it was caved tight, but as soon as the fan was started the smoke receded down the slope. Fifteen minutes later the smoke from the fan exhaust began to clear off.

Pending the arrival of rescue crews, Mr. H. Dalrymple, foreman of the Cass mine, and I, decided to enter the mine following the fresh air, with a view of estimating the destruction to stoppings, etc. We found all stoppings intact and fresh air all the way to the third North entry. One hundred feet out by third North entry we met two men, Tom Struthers, mine foreman, and Dan Woods, assistant mine foreman. We learned from them that the men in the third right were safe. We advanced farther down the slope to the third North overcast and found it destroyed and the air current short circuiting at this point. We also found four loaded cars on the slope rope at this point and as we could not advance farther on account of bad air, we returned to the surface.

As the rescue cars had not yet arrived, it was decided to try to rescue the men from the third North. After being equipped with Burrell gas masks, accompanied by Henry Dalrymple and Clyde Winters and two brattice men, we went to the third North parting. Mr. Henry Dalrymple and Clyde Winters advanced into the third North and brought the 24 men out. In the meantime, the brattice men were repairing the blown-out stoppings at the third North overcast so that we could advance farther down the slope.

Rescue crews having arrived at this time, we were met by them at the third North parting. U. S. Bureau of Mines crews in charge of Engineer Marshall, C. F. & I. crews in charge of Geo. B. Parker. We proceeded down the slope about 300 feet, where we found a number of loaded cars blocking the slope. We crawled over these cars, which were sixteen in number, the last three being derailed.

We also found the body of the rope rider at this point in a cross-cut. Advancing down the slope to the fourth North, we heard some one calling at the fourth North parting. We encountered the dead bodies of four men—two motor men and two nippers and John Walker, pumper, who was alive. Walker informed us that he was knocked down by the force of the explosion 800 feet in by on the fourth North entry and that these four men who were dead had carried him to this point. The rescue crew advanced into the fourth North and brought all the men from this section out alive. We were informed at this time that all the men had been removed from fifth and sixth North and Rock Island sections of the mine with no loss of life. All the men were accounted for in

the third North and fourth North, and in the total check one man was missing, whom we understand was the tracklayer. Continuing our advance down the slope we discovered that the fourth North overcast was also destroyed. We went through the cross-cut to test return air and found the body of the tracklayer in back entry. Total number of men being accounted for, we withdrew to surface.

On May 28th, the day following the explosion, an investigation was made with a view of ascertaining cause of the disaster. Following being present: Chief Inspector Dalrymple, Deputy Inspector Geo. Dalrymple and the writer, B. F. Snodgrass and other officials of the Victor American Fuel Co., Mr. Marshall of the Bureau of Mines and his assistants, Mr. Murray and Mr. Smith, and George B. Parker of the C. F. & I.

It was found that the initial cause of the explosion was a runaway loaded trip wrecking on the slope, and coming in contact with electric wires, formed an arc, which ignited the coal dust thrown in suspension by the wreck. From the initial point of the explosion it was found that the wave of violence traveled about 1200 feet to the portal of the mine, about 2400 feet in the third North, about 2200 feet in the fourth North and 2000 feet in the fifth North. This mine was rock dusted and analysis of dust taken by the Bureau of Mines shows that the percentage of inert matter is slightly below the percentage recommended by the Bureau of Mines, which prevents exploding of coal dust and also propagation of an explosion. It was the consensus of opinion that the rock dust present slowed down the explosion to a considerable extent.

The State Inspection Department believes that the principal reason the explosion did not become general was that the outward force, upon reaching the surface, released the pressure on the inward force, thus causing it to recede.

This explosion brings out the fact that it is useless to rock dust without making tests at regular intervals to find the percentage of inert matter. Also, in my opinion, to prevent repetition of these disasters, all mines should be classified the same, and the same preventive measures taken in non-gaseous mines as are taken in gaseous mines.

I wish sincerely to thank Mr. Marshall and his crew from the Bureau of Mines, Mr. Parker and all the C. F. & I. employes and others who assisted us at this time.

Respectfully submitted,

FINDLAY McCALLUM,
Deputy Inspector, Dist. No. 2.