

Report on
Castle Gate No. 2 Mine Explosion

Castle Gate, Utah

March 8, 1924

by

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R E P O R T

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I N T R O D U C T I O N

On March 8, 1924, shortly after eight o'clock in the morning, an explosion occurred in Castle Gate No. 2 mine of the Utah Fuel Company at Castle Gate, Utah, resulting in the death of 191 men, the total number in the mine. This explosion was followed by a second explosion which occurred about one and a half minutes later. A third explosion was reported by many; however, the writers are without proof of this explosion. Those who saw the third explosion, which was about twenty minutes after the first, say only a puff of smoke issued from the mine. It is thought that this puff was probably due to a cave. There was a cave of considerable size in the water road air course and in the back entry of the 4th Right Dip Entry. The pillars had been pulled above the 1st Right Raise Entry and a cave of considerable extent could have occurred here.

The first explosion forced out of the mine escapeway timbers from along the escapeway and a piece of sheet iron which was located near the entrance of the escapeway and shot it for a distance of 1,500 feet. The force

"Jan. 4, 1924 - Gas in No. 2 Room on 6th Left, gas extending back from face 70 feet. This gas was removed about 10 A.M. and made safe. Signed Ed Cox - Fire Boss."

"Jan. 8, 1924 - Gas found in No. 2 Room on 6th Left caused by a larger feeder. Signed E B C. Gas found on Jan. 8 was all cleared Jan. 10, 1924. Signed E B C."

"Jan. 22, 1924 - Gas found room 8th Right extending 90 feet back from the face caused by brattice down and feeders at the face. Signed E B C. The exception on the 22nd was cleared and ready for miners to work in. Signed E B Cox."

"Jan. 28, 1924 - Gas was found in No. 2 Room 6th left extending 80 feet from face. Signed Ed E. Cox. This exception was removed by ventilation and made safe. E B C."

"Feb. 16, 1924 - Gas was found in No. 2 and 2A on 7th Left extending 80 feet from face by large feeder at the face. Signed E B C."

The rooms in which this gas had been reported were about 20 feet wide, 8 to 10 feet high where the top coal had been left up and from 15 to 18 feet high where the top coal had been taken down. In most of these rooms the top coal had been taken down to a comparatively close distance to the face; thus leaving a large area for the accumulation of gas. Since all the reports showing gas, report the gas extending 70 to 90 feet back from the face, the volume even on a single report was comparatively large.

The explosion occurred shortly after eight o'clock in the morning and it is doubtful if the miners had sprinkled down in a thorough manner before starting to load their first car. It is the general practice to load the cars as soon as they are obtained and to sprinkle the workings while waiting for cars. It seems safe to assume that in general the fine dust made during the blasting after the previous shift had not been wet down. Also, many of the miners were loading coal and this put a certain amount of coal dust into suspension. Therefore, it is fairly safe to assume as far as coal

of the explosion at the fan entry and the main portal was not as great as at the escapeway. The explosion doors at the fan were blown open and the reversing door was forced about halfway up to the reversing position where it stuck due to the springing of the fan housing; otherwise the fan was not damaged. A few sets of timbers at the entrance of the main portal were blown out and the portal was filled about three-fourths full of dirt for a distance of about 30 feet.

Soon after the explosion the fan was started and ran until about 2:00 P.M. before it was noted that the reversing door was out of place. The fan was then closed down and not started again until about 6:00 P.M. About three o'clock in the afternoon an air measurement on the escapeway or first left entry showed 37,000 cubic feet of air was traveling in along this entry and this was one reason for believing the fan was normal. It was not until after the air started to leak out in this entry that it was suspected the fan was not in proper condition.

The Mine Inspection Department of the Industrial Accident Commission was notified of the explosion about 9:00 A.M. by the general offices of the Utah Fuel Company at Salt Lake City and the Bureau of Mine Safety Car 1, which was located at Butte, Montana, and Car 2, which was located at Dawson, New Mexico, were moved by special train to Castle Gate, Utah. Car 1 arrived at Castle Gate at 4:30 A.M. Sunday and Car 2 arrived at 2:30 P.M. Sunday afternoon, March 6th. A special train carrying the officials of the Utah Fuel Company, other prominent mining officials and representatives of the State Mine Inspection Department and the Bureau of Mines left Salt Lake City at 11:45 A.M. and arrived at Castle Gate at 3:00 P.M. The officials of many mining companies located near by, together with the general superintendents and practically all



dust is concerned that the mine was in its poorest condition to resist an explosion at the time it occurred.

GENERAL INFORMATION

Location, Operability, etc.

The Castle Gate No. 2 Mine is one of a group of mines being operated by the Utah Fuel Company. It is located at Castle Gate, Carbon County, Utah, and is served by the main line of the Denver & Rio Grande Western Railroad.

Mr. F. W. Cameron, Judge Building, Salt Lake City, Utah, is Vice-president and General Manager.

Mr. William Littlejohn, Castle Gate, Utah, is General Superintendent.

The Utah Fuel Company operates in addition to Castle Gate No. 2 Mine, Castle Gate No. 1 Mine at Castle Gate, Utah, Utah Mine at Clear Creek, Utah, Clear Creek Mine at Clear Creek, Utah, Winter Quarters Mine at Winter Quarters, Utah, and the Sunnyside Mine at Sunnyside, Utah.

The production of Castle Gate No. 2 Mine at the time of the explosion was about 1,400 tons per day.

Coal Occurrence

The coal at Castle Gate No. 2 Mine is being produced from what is known as the "D" seam, - New Verbe formation and Cretaceous age (U.S.G.S. Bulletin No. 316). The seam varies in thickness from 30 to 36 feet and dips about 6 or 7 degrees to the North. The coal is massive and of good quality being moderately low in moisture and ash. It has a bright luster and streaks

