

Appendix J – Inundation by Water of the 1 North Longwall Headgate

The MSHA Accident Investigation team concluded from inspector notes and witness testimony that a water inundation occurred on November 16, 2009. Further, the Accident Investigation report stated: “Thus, it is plausible that differential subsidence above the 1 North panel occurred beneath the barrier, causing joints or fractures to open sufficiently to allow water and air communication between the Eagle and Powellton seams.” The water flooded the bleeder and return entries in Headgate 1 North in by the longwall face. As the water accumulated in the bleeder system, it increasingly restricted air flow, which also caused the fan pressure to increase.

On November 13, 2009, the fan pressure recorded at the Bandytown Fan was approximately -4.0 inches of water.⁷³ On Monday, November 16, the fan pressure began to gradually increase. By Wednesday, November 18, a fan pressure of -17.0 inches of water was recorded. During this time period, a handwritten notation on the Bandytown Fan pressure chart indicated “pumps down.” The fan pressure chart is shown in Figure 22.

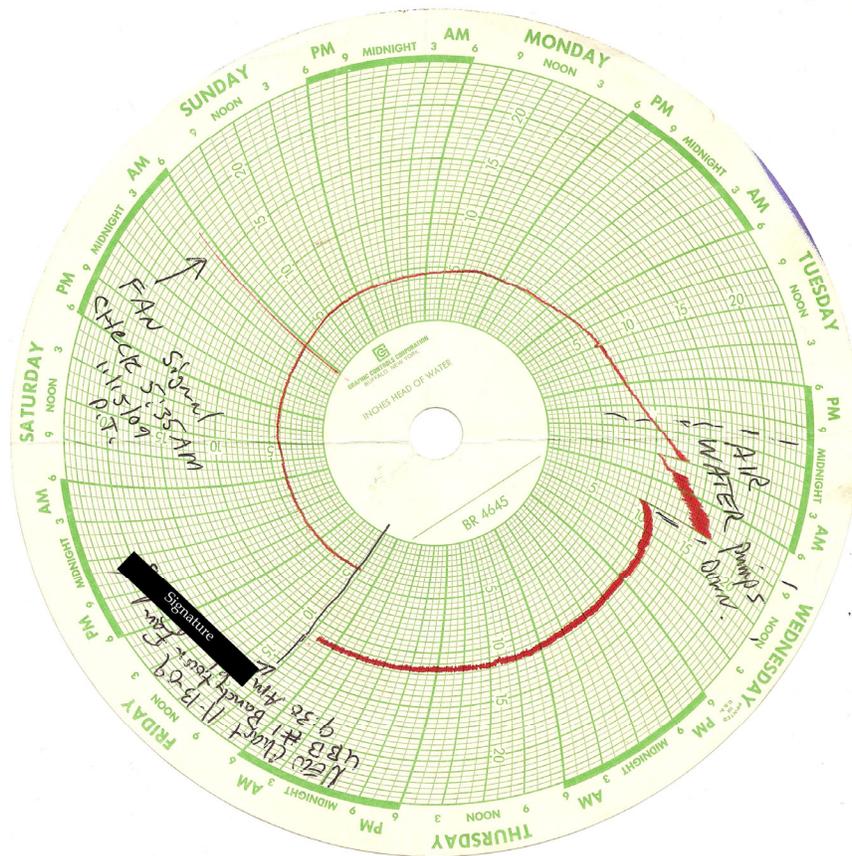


Figure 22 - Bandytown Fan Chart from November 2009

On November 19, 2009, a District 4 ventilation specialist examined the longwall headgate entries and observed an accumulation of water 12 to 15 inches in depth in the No. 3 entry extending a distance of 300 feet from crosscut 55 to 58. At that time according to production reports, the longwall face was at crosscut 54 on Headgate 1 North. The specialist issued a section 104(a) citation (No. 6612944) for this violation of 30 CFR 75.364(b)(2). During his interview with the Internal Review team, the specialist stated that the water level was not increasing. At that time, the fan pressure on the Bandytown Fan chart was reduced to approximately -11.5 inches of water as a result of pumping.

⁷³ Exhausting fan pressures are recorded as negative numbers. As the fan pressure increases, the recorded value becomes more negative. For example, a fan pressure of -17 inches is more than three times a fan pressure of -5 inches.

On December 14, 2009, another District 4 ventilation specialist traveled the No. 3 entry of Headgate 1 North. The entry was required to be separated from the longwall gob by permanent stoppings to accommodate a return air course for the Headgate #22 development section. The specialist found water accumulations up to 48 inches deep in the return entry extending from crosscut #73 to #134, a distance of approximately 6,000 feet. At that time, according to production reports, the longwall face was at crosscut 50 on Headgate 1 North. He issued a section 104(a) citation (No. 8085240) for a violation of 30 CFR 75.364(b)(2) because the return air course could not be traveled in its entirety. In addition, the specialist issued a section 107(a) order (No. 8085239) for slipping/tripping hazards where miners were working to install a stopping-like wall in the water. During his interview, the specialist stated, "I've got personal testimony of firebosses that said they traveled up to their chest in water." Regarding the source of the water, he stated, "I think with the company they just alluded to the mine above them. You know, they didn't specify. I never did look at any maps that showed any pools of water. ...I would presume that person would be Everett Hagar [mine superintendent] that I talked to during the day there when I inspected concerning that water which would have been in December."

The water accumulated in the No. 3 entry of Headgate 1 North posed a continued hazard to miners traveling and working in the area and was duly cited by both District 4 ventilation specialists. At the time of the inspections, neither specialist recognized the water accumulation as an inundation. Further, neither specialist examined the fan chart which provided additional evidence of an inundation. The Operator did not immediately notify MSHA of the inundation, as required by 30 CFR 50.10, nor did it report the accident to MSHA as required by 30 CFR 50.20(a).

On December 18, 2009, a ventilation plan supplement was approved in which the Operator proposed discontinuing the use of the No. 3 entry as the Headgate #22 section return. The return was redirected through the North Glory Mains and across the Panel #1 crossover to the No. 1 entry of Tailgate 1 North. This change allowed the Operator to evaluate the ventilation of the No. 3 entry as part of the bleeder system rather than travel and examine the entry as required for a return air course. As a result, both the citation and order were terminated on December 30, 2009, without the Operator pumping the remaining water from the area.