

No coal seams were encountered in the drilling. The rock types present were typical of strata overlying coal measures and included claystone, fossil shales and fine-grained sandstones.

American Cyanamid Company's AM-9 is a dry-powder mixture of two acrylic monomers that is applied as an aqueous solution. When catalyzed a cross-linked polymer is formed that renders soil and rock formations impermeable to water.

Because solutions of AM-9 retain the same density and viscosity as water until the point of its instantaneous gelation, they could be pumped into the areas located by the dye in the same time intervals. The gel-time of the grout was set so that the leaky channels would be completely sealed.

The use of 220 gallons of 10 percent AM-9 pumped into 15 bore holes was sufficient to eliminate the entry of water into the roof and ribs of the mine.