The Big Boy Mine No. 1 unit is mining North toward the Main West Bleeder entries. They had already cut into the three West set up face entries. Something happened just hours ago but we don't know what. Mine Rescue Teams explored across the West set up entries but were blocked by roof falls and water before they could enter the No. 1 unit. The No. 1 unit is an eleven man crew and none have been heard from. The No. 1 unit is equipped with two 6 person Refuge Alternatives. We thought we heard someone trying to communicate using one of the R.A.'s communication devices but it was not distinguishable. The main fan is running and cannot be stopped, stalled or reversed. Air enters through the No. 2 supply road entry and returns outby through the No. 1 belt entry and No. 3 return entry. Back up teams are here and ready. Power is off inby the fresh air base. The map is not up to date.

Good Luck

Problem

- Explore the entire mine if it can be done safely
- Account for all missing persons and bring survivors to the fresh air base.
- Report all ignition sources and explosive gas mixtures to the superintendent before the team moves from that stop
- You have two days to complete this problem

Keys to problem

- The team will be tied to the person between the over knee deep waters in No. 2. They will have to pump the water roofed and ventilate the explosive mixture out of No. 2 before they can advance the pump to the water over knee deep. There is enough cable to go straight with the pump for both water over knee deeps but not enough cable to circle the pillar.
- If the team ventilates before they pump the water roofed they may not remove the irrespirable mixture in the mouth of No. 2. Watch bringing a barefaced patient through there.
- Neither RA can be ventilated. One due to gas, the other due to not being able to account for everyone until the RA is entered. The one between 1 and 2 has a response and they can go in and get him. The airlock is clear.
- The RA between 2 and 3 does not have a response. The team may continue to explore but
 eventually they will have to go into this RA to account for everyone before they can vent the
 barricade in 3.
- The barricade in 2 does not have are response but is clear. They can airlock into it. It appears to have a quitter in it due to smoke and the gas in the barricade but the solid lines in No. 1 makes a separation between smoke and gas.
- The pump switch in the fresh air base can have the power removed if the team asks for it.
 Otherwise they cannot ventilation the barricade in 3 or if they do it will blow it up at the pump switch.







