

2012 Knight Hawk Coal Mine Rescue Contest

This contest is an inter company contest consisting of the following teams.

There will be four teams involved:

1. Prairie State Lively Grove Mine rescue Team
2. Arch Minerals, Viper Mine rescue Team
3. Arch Minerals, Coal River Team
4. Knight Hawk Coal, Prairie Eagle Mine Rescue Team

The teams will be given the Statement when they arrive at the Fresh air base and will be given seven minutes to review and start the clock.

Once the clock is started the teams must air lock into any of the openings. They will make a 50 foot check once inside the mine and then continue to explore into "A" crosscut. If the team goes up No. 2 entry they will find the explosive in "A" intersection. They will continue to explore over to the No. 3 entry and tie across and behind.

They will then explore in by to crosscut "B" and explore up to the caved Air tight.

The team will then tie across to No. 2 entry "B" crosscut and also make up to the unsafe and tie behind also.

The team will then tie over to entry 1, "B" crosscut and tie behind to the back side of the permanent stopping just in by the fresh air base.

The team will find the explosive in "A" intersection.

The team will then explore up No. 1 entry to "C" crosscut. The captain will make his roof test at the unsafe roof just out by the barricade and into the crosscut, (zig zag).

The conscious live person will only tell the team, Help, Help, Get Me Out.

The team will advance to No. 2 entry "C" intersection. At this point the captain will be handed a note that says, Your No. 5 team member has become sick and cannot continue. The team must return to the fresh air base and put someone else in the No. 5 team members position.

The team will then go back into the mine and make an apparatus check and then return to No. 2 entry "C" intersection. They will explore back to the unsafe, make roof test at the caved, and explore inby.

The team will then advance to "D" intersection in No. 2 entry. At this point they will explore to the face area and to the left to the barricade. The team will need to be on the life line to explore to the right side. They will then explore over to the shaft. They will explore to the face and then outby.

The team will advance to the "C" crosscut intersection. At this point they will explore to the caved airtight and then find the RA and explore to the caved.

At this point they can ventilate.

Most teams will ventilate starting with the following:

The teams will build across all three entries just inby "A" crosscut, maintaining an air lock, they will move the battery phone in No. 3 entry just inby the permanent stopping. They will then remove the stoppings in No. 1 and No. 3 entries and build in the fresh air base between No. 1 and No. 2 entries.

This will clear the explosive mixtures.

The team will then remove short circuit the air in the fresh air base. They will build just outby the shaft in No. 3 entry, and also in No. 2 entry just inby the unsafe roof. The teams can build in No. 1, 1and No. 2 entries Just outby "B" intersection, they will build the permanent stopping back in No. 1 just inby the fresh air base, leave the stopping down in No. 3 just inby the fresh air base and build across the fresh air base between No. 2 and No. 3 entries.

The team will then set props up to the barricade and wing the barricade clearing the low O2. The barricade can then be removed and the team will set another prop complete the roof tests and rescue the conscious live person and find the body. They will bring the live person to the fresh air base and return to the unsafe roof where they will set the timbers and find another body.

The team will then go to the RA and they will use the air lock on the RA to get inside. There is a placard that states purge valve. They will then bring the person to the fresh air base. If they do not ventilate he must have an apparatus or SCSR on when he comes out.

The captain will then come out and stop the clock.

I estimate about 60 minutes

The teams are given 70 minutes to complete the problem.

2012 Knight Hawk Coal Mine Rescue Contest Statement

I am _____, Superintendent of the Lucky Seven Mine. This mine is a two unit drift mine. The Main North Section is developing 3 entries off of the Main West Entries.

At 7:00 a.m. this morning a 5 member maintenance crew entered the mine and proceeded into the Main North Section to perform idle work. At 9:00 a.m., the mine communication center said there was a jump in the pressure recording chart at the Main mine fan. Several attempts have been made to contact the crew, to no avail. At 9:30 a.m., 1 miner came out of the mine, and informed mine management that he heard a loud noise and felt a rush of air but could not determine if there was an ignition or a roof fall. The miner made several attempts to contact the remaining 4 miners but there was no response.

You are located at the fresh air base on the Main North Section. This fresh air base was established when conditions were encountered that no longer permitted bare face exploration.

This section has experienced bad roof conditions, water problems, and high concentrations of methane gas. All power going in by the fresh air base has been deenergized and locked out, and will not be available until possibly the next shift.

The mine is ventilated with an exhausting fan located on the surface. The fan is operating and is guarded and cannot be stopped, reversed, or stalled.

The Main North Section has recently intersected a 10 foot diameter shaft in the No.3 entry.

All proper authorities have been notified, a command center has been established on the surface, and back-up mine rescue teams are standing by if needed. The mine map is up to date. We have a competent lifeline person to give and return signals.

This is all the information we have available at this time.

**2012 Knight Hawk Coal
Mine Rescue Contest**

(WRITTEN INSTRUCTIONS)

**EXPLORE THE MINE IN ITS ENTIRETY WHERE
SAFE TO DO SO.**

**ACCOUNT FOR ALL MISSING PERSONS AND
BRING ALL SURVIVORS TO THE FRESH AIR
BASE.**

**THE TEAM MAY NOT CARRY MORE THAN TWO
(2) BRATTICE CURTAINS AT ANY ONE TIME.**

**YOU HAVE A MAXIMUM OF 70 MINUTES TO
WORK THE PROBLEM.**

2012 Knight Hawk Coal Mine Rescue Contest

**The No. 5 team member has
become sick and cannot
continue.**

Knight Hawk Coal Mine Rescue Contest

Patient Statement

Help! Help! Get Me Out