2015 Missouri Mine Rescue Contest
Rolla, MO.
Sept. 28 – Oct. 1, 2015

Problem Solution Day #2 (Surface)
(See Solution Maps)

FAB

The teams will arrive at the FAB and have introductions, the team will also be informed that they will be able to string out their communication line but will not be able to check functionality until they have started the clock. Once the clock has been started the team will receive all of their maps and information. The mine manager

Team Stop #1
The team will examine the entries and also identify the principle air flow by observing the direction and quantity on the placards. As they were informed in the team briefing ventilation is now reversed. The team will enter the north access and identify an open "Air Door" and another closed "Air Door".

Team Stop #2
The team will retreat tot the south access and identify "Building Material (1 set)" and an air door. Knocking on the air door they get no response and the team will need to air lock to enter the door. Entering the area the team will identify "Caved Tight"; this will be the team's furthest point of advance. The team will have to retreat back to the north access.

Team Stop #3
Continue exploration through the air lock in the north access identifying a gas placard indicating "Heavy Smoke" and "Water Knee Deep". Stretching south the team will identify "Caved Tight.

Team Stop #4
The team will continue west in the north access identifying "Caved Tight", and travelling south until they reach an intersection. Stretching east they identify a gas placard and "Barricade". The team will make contact with a miner named "Jack", jack will inform the team that he is not harmed and the air inside the barricade is good.

Team Stop #5
Based on the concentrations of gas outside of the barricade the team will need to ventilate before entering and will continue exploration west in the S. Access. The team will reach the next intersection, identifying "Building Materials (1 set)" on their way. Stretching north the team will identify a "Temporary Stopping (not intact)". , "Heavy Smoke", and the other side of the "Caved Tight area

Team Stop #6
The team will continue exploration north through the "Temporary Stopping (not intact)" until they reach the next intersection. They will identify "Heavy Smoke" and "Water Over Knee Deep". Stretching east they find a "Sump Pump" and the other side of the "Caved Tight", stretching west they identify "Low Roof". Note: If the team decides to crawl under the "Low Roof" they will be discounted for team endangerment due to the fact that they are already travelling in water knee deep.

Team Stop #7
If the team decides to travel around the "Low Roof" they will retreat to the previous intersection and travel west in the south access until they reach "water Over Knee Deep", also locating "Sump Pump Controls". The team will not be able to explore any further and will need to pump the water down in order to continue. The team will only need to move the submersible pump into the "Water Over Knee Deep" and return to turn on the pump controls, once this is accomplished the water will return to water knee deep.

Team Stop #8

The team will most likely continue north in the south access, identifying "Refuge Chamber #1", knocking on the door the team will locate a miner named "Jim", he will inform the team that the air inside is good and he is not injured. Based on the gas concentrations outside of the refuge chamber the team will need to ventilate for entry. The team will continue identifying the "#1 Hoist", "#1 Hoist Controls (Damaged), and a "Damaged Permanent Stopping (Intense Heat)". The team should with undue delay regulate the fire by constructing a ¾ seal.

Team Stop #9

The team will retreat to the north access in efforts to locate another access to the fire, travelling north in the south access the team will identify an "Explosives Truck on Fire (Intense Heat)", the team with undue delay shall construct a ¾ seal. The team will know that there is still one more approach to this fire and remembering that they have a team in the decline; they should contact the FAB and request that the decline team regulate the third side of the fire. Note: Once they complete the second regulator build, the #1 Judge will inform the team that the miner inside of the shaft has been rescued but the shaft is still inoperable.

Team Stop #10

The team has now explored all accessible areas of the mine and has located the fire. The team will need to ventilate in order to extract the miners. The team should request a ventilation change.

Ventilation Change to enter the Refuge Chamber and barricade (See attached map)

- Convert ¾ seals to full seals (requesting that the decline team do the same)
- Build a temporary stopping in the south access next to the FAB to course **All** of the air in to the south access (if the team fails to use all of the air the ventilation will split and the gas placard will not change).
- The team will be able to enter refuge chamber #1 and take the miner to FAB, also locating a line brattice.

Team Stop #11

Utilizing the line brattice the team can ventilate in front of the "Barricade" to enter. The team will explore east identifying "Jack" missing miner, the "Sump #1 (ON)" and the other side of the "Caved Tight" area. The team will now be able to take the survivor to the FAB.

The team has located and sealed the fire, explored all accessible areas of the mine, and located three of the missing miners. The team will inform the Mine Manger that the fourth missing miner is still missing but is presumed to be inside of the explosives truck. The team will stop the clock. THE END.