

33RD ALABAMA COAL ASSOCIATION 2009 Mine Rescue Contest



May 27, 2009 Problem Briefing



Alabama Coal Association

2009 ACA MINE RESCUE CONTEST

Superintendent Statement

I am _____, Superintendent of the Knotthead No.4 Mine. Thank you for answering our call for help. Knotthead No. 4 mine is a new highwall mine driving 5 entries into the highwall. We are driving toward the old Knotthead # 3 unsealed mine and plan to connect with the old mine in the future.

Early this morning, (Four) 4 men entered the mine to run early coal. At 5:00 am, an explosion was heard and the exhaust fan stopped. All attempts to reach the crew have been unsuccessful . All (Four) 4 miners are still missing.

I traveled into the no. 2 entry and found low oxygen and high methane and came back outside to call for help.

A fresh air base has been set up in this first crosscut by rescue teams "A" and "B" and all areas outby this location have been made. Rescue team A made the no.1 entry and connecting crosscuts as far as they could, but did not travel to no. 2 entry. Rescue team B has made the no. 5 entry and connecting crosscuts all the way to the face, but did not travel to the no. 4 entry. A map showing the extent of their travel and conditions found will be given to you once the clock is started. The exhaust fan has been repaired and can be turned on by asking me. Teams A and B now have airlocking material available and can build or tear down stoppings, if needed. No other work can be done by these teams. Work done by these outby teams will take 2 minutes to perform and must be submitted to me on the outby map (Ventilation after the incident and area unexplored).

All electrical circuits going in the mines have been de-energized, locked out and guarded. Teams A and B are here to serve as your backup.

This mines has problems with water, bad roof and methane. The mine maps are not up to date.

We have a competent lifeline person to give and return signals (point this person out)

Written instructions and mine maps will be provided when the clock is started.

The following maps will be given to you once the clock is started:

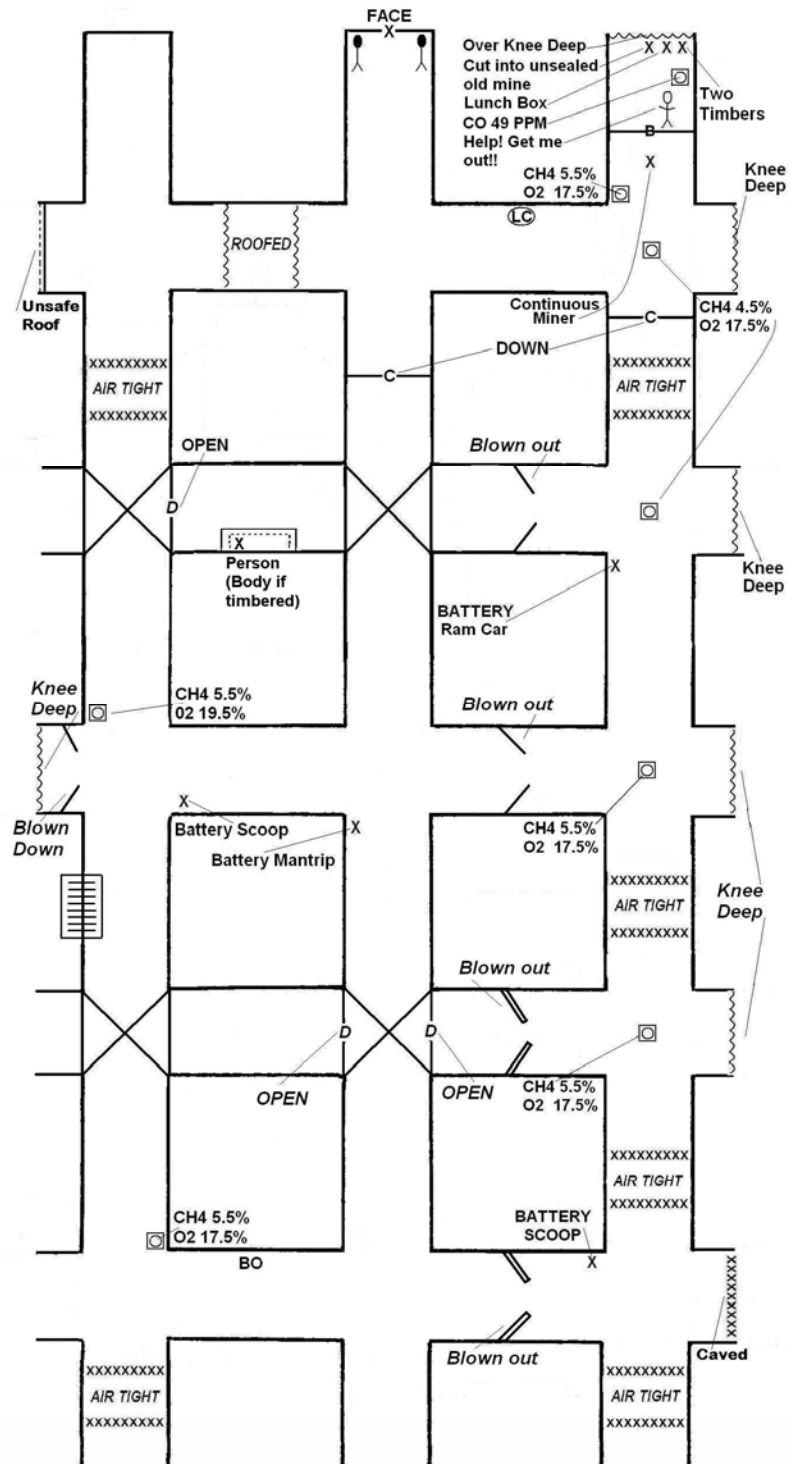
2 maps showing ventilation before the incident

2 maps showing ventilation after the incident

2 maps showing area to be explored by your team

Thank you and your team for your assistance !

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Problem

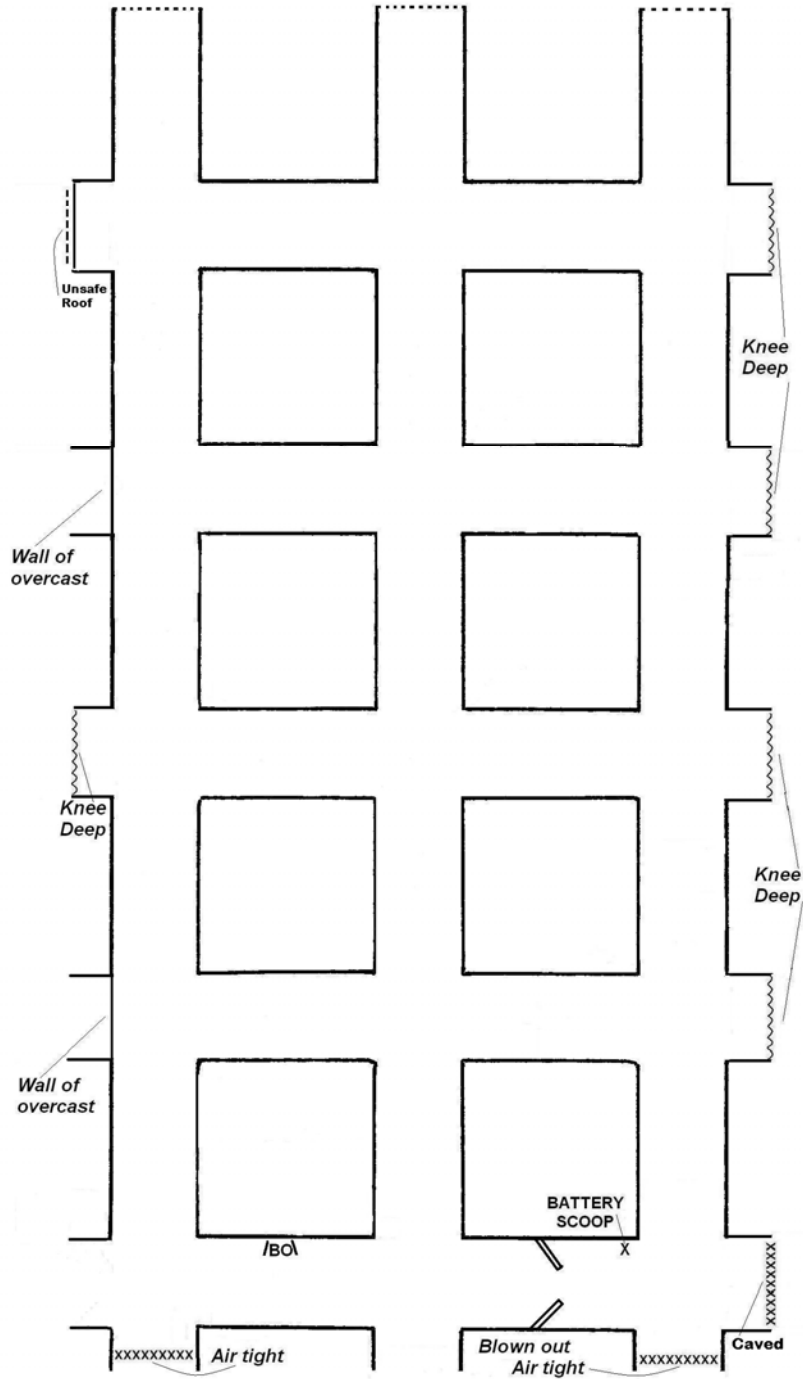
(Written Instructions)

**STOPPINGS BUILT OR REMOVED
BY OUTBY TEAMS IS LIMITED
TO NO.1 AND NO.5 ENTRIES
AND CONNECTING CROSSCUTS
ONLY**

**EXPLORE THE ENTIRE MINE IF IT
CAN BE DONE SAFELY AND
BRING SURVIVORS TO THE
FRESH AIR BASE**

**THE EXHAUST FAN CANNOT BE
REVERSED**

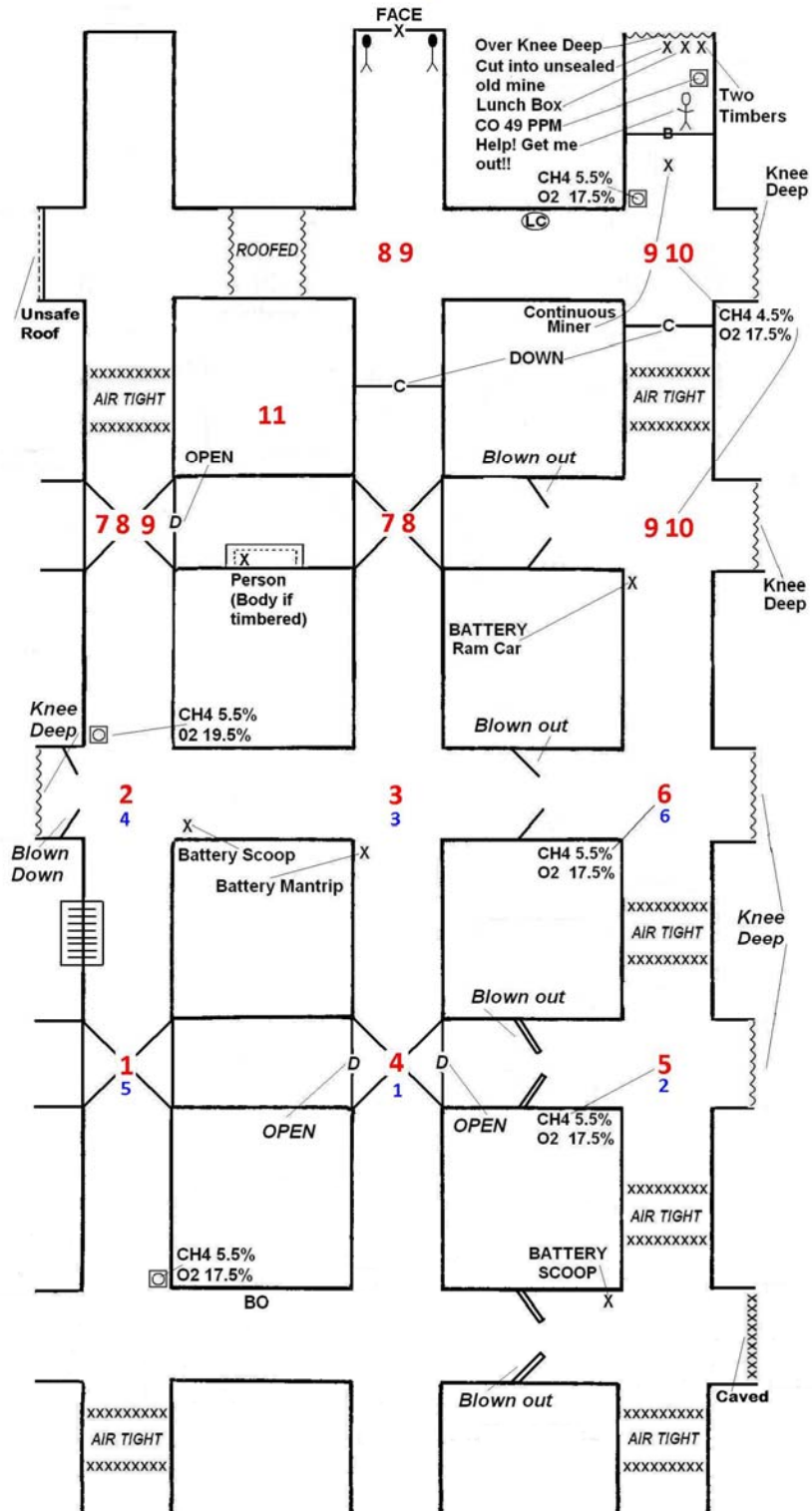
Team Map



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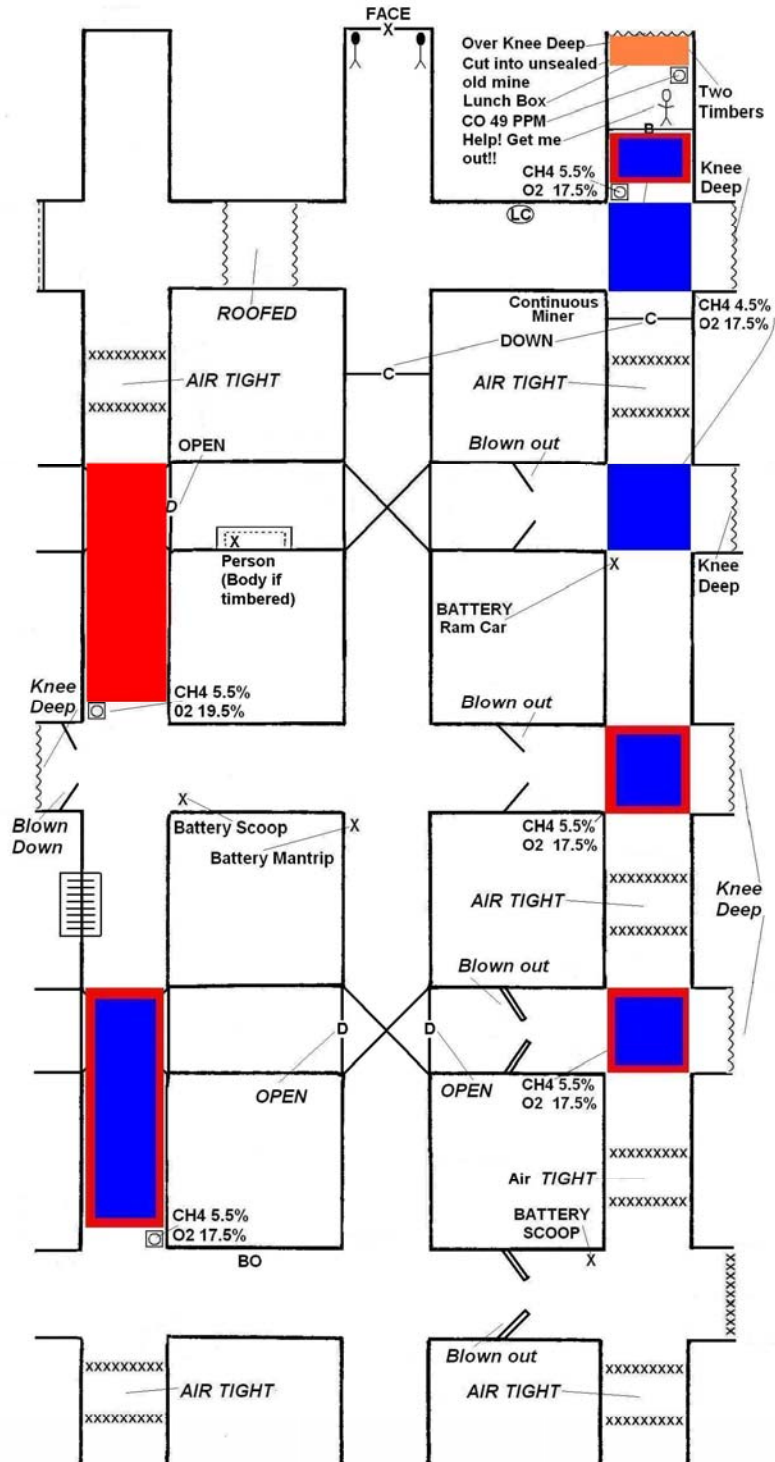
Team Stops Option 1 Red

Option 2 Blue

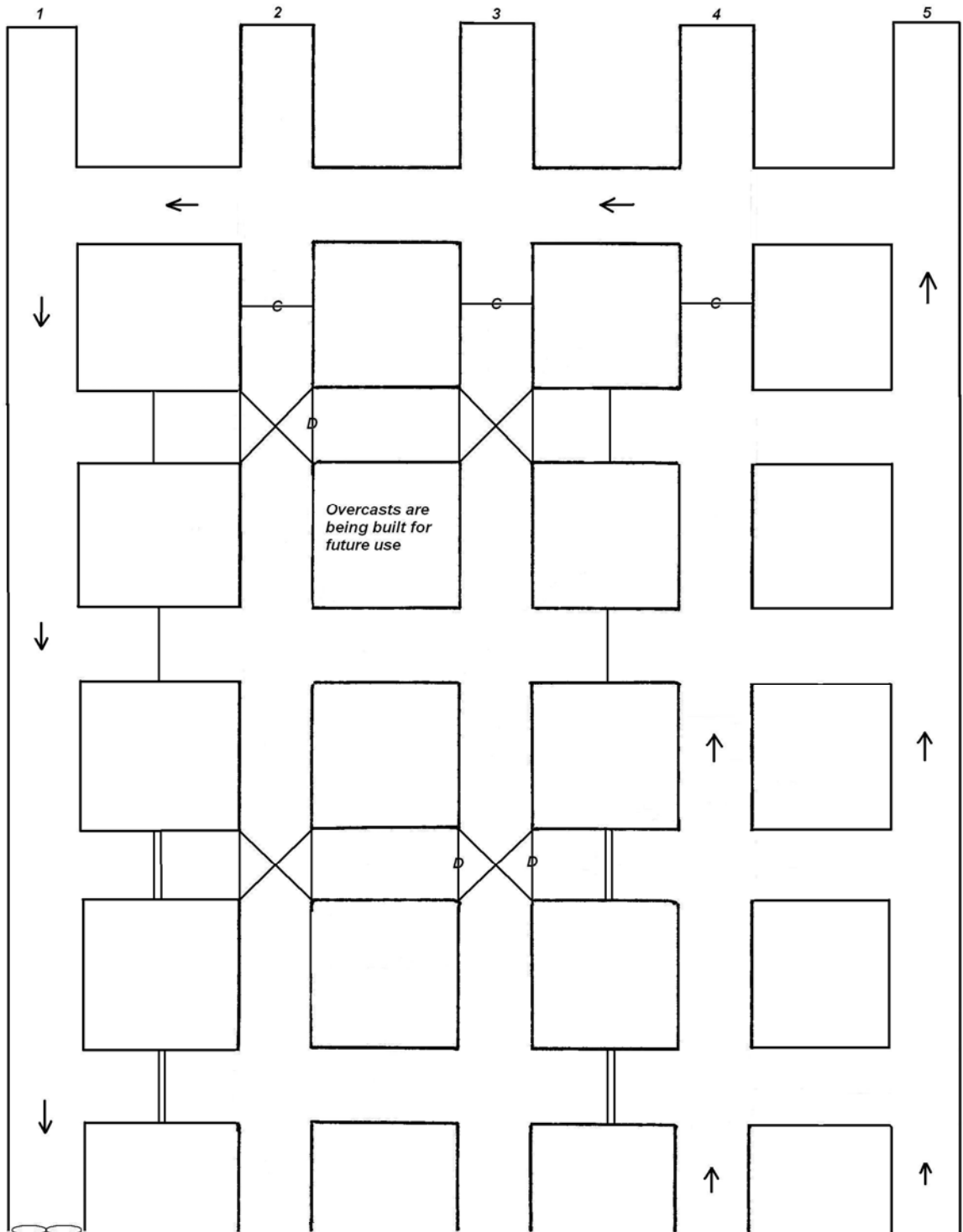


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Explosive █
 Irrespirable █
 Evidence of fire █

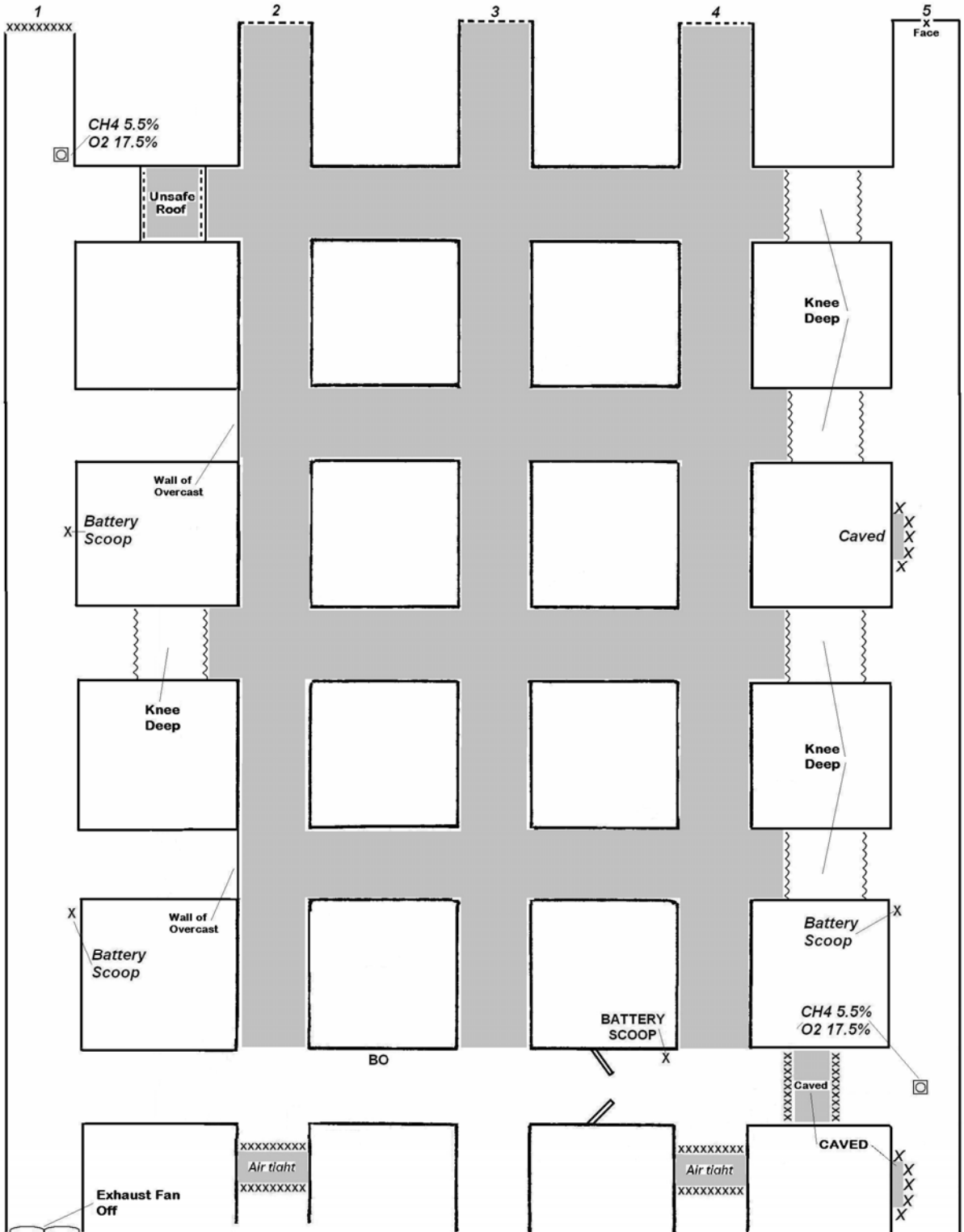


Ventilation before the incident



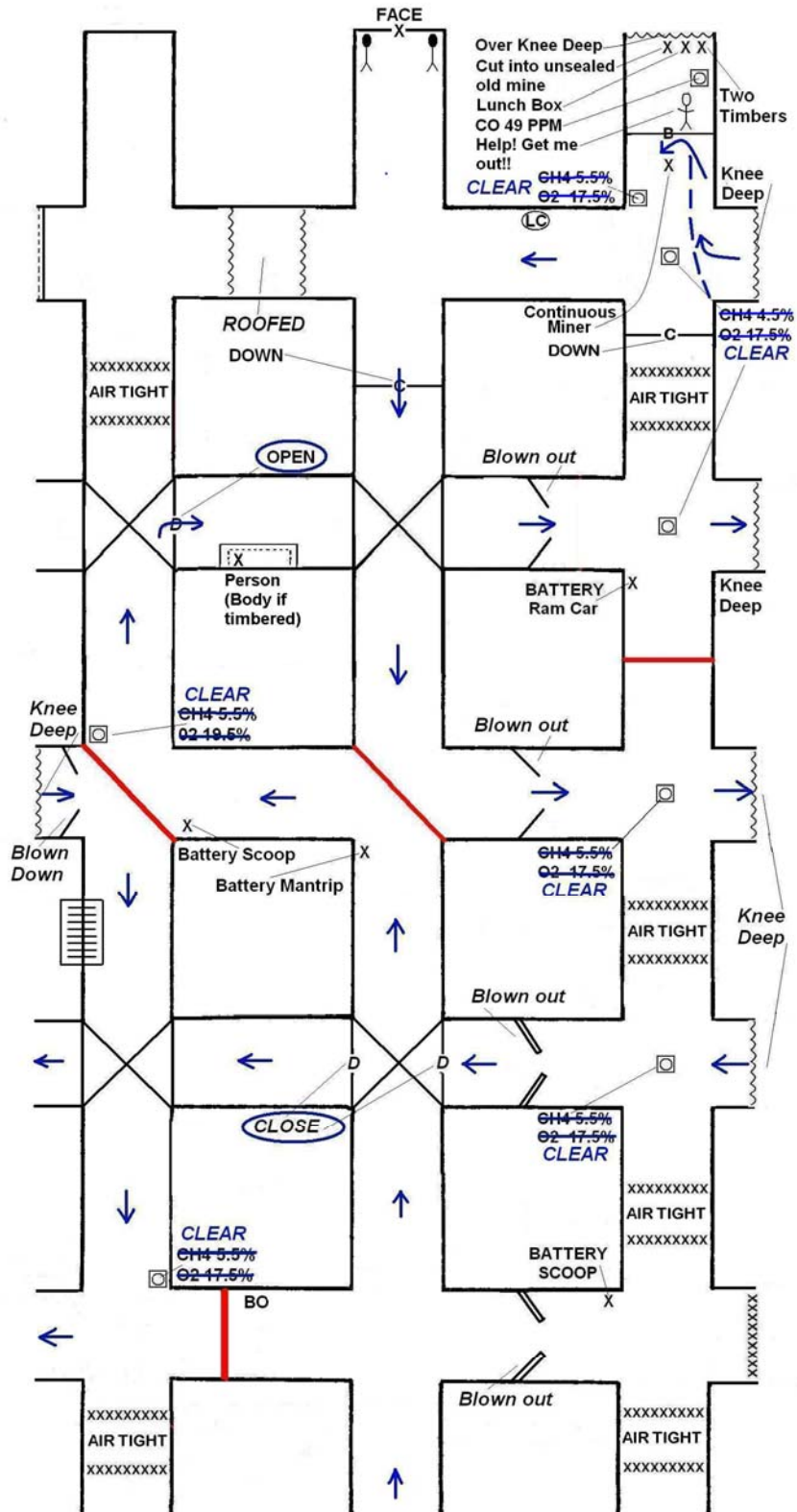
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Ventilation after the incident and area unexplored by rescue teams



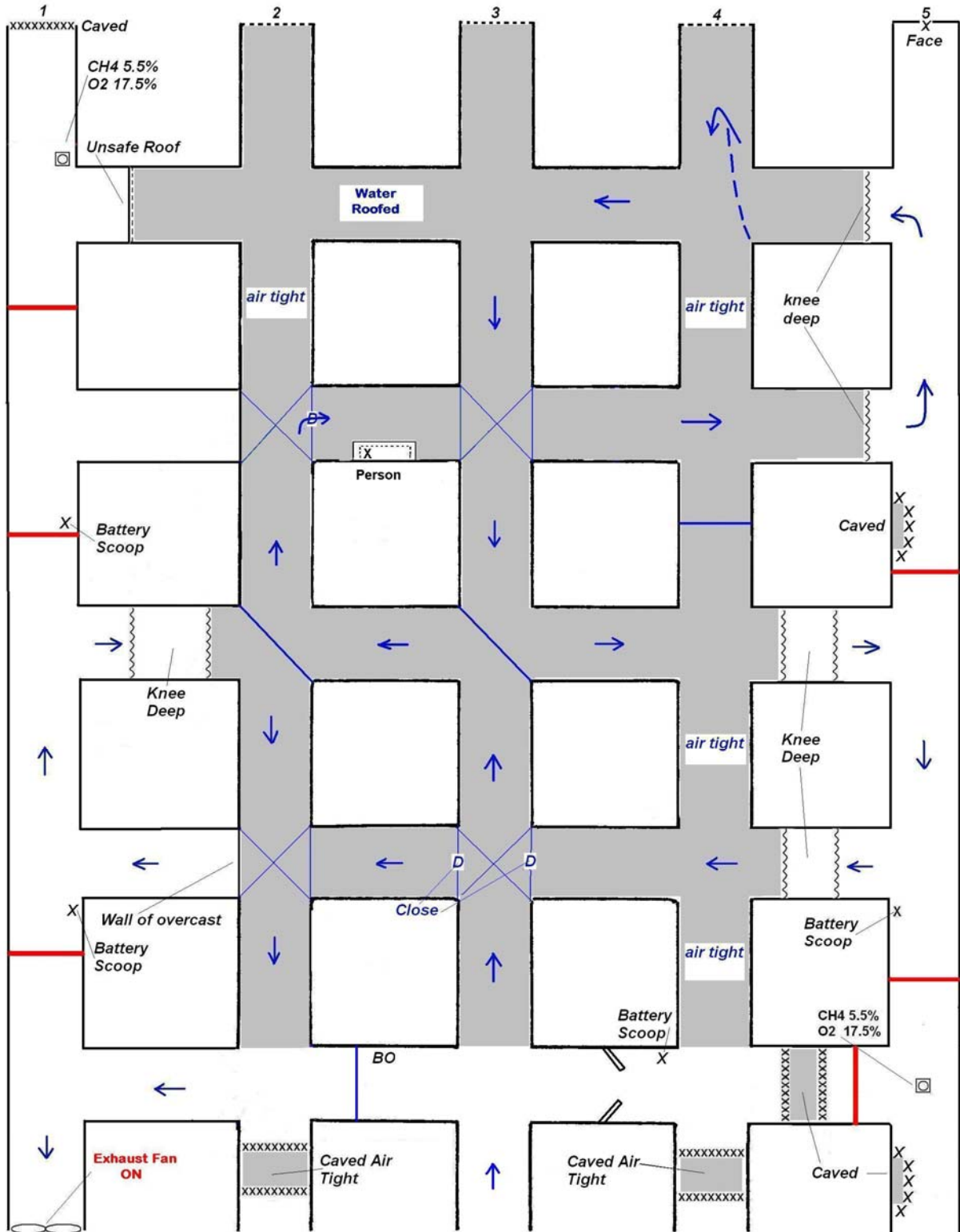
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Ventilation on Field

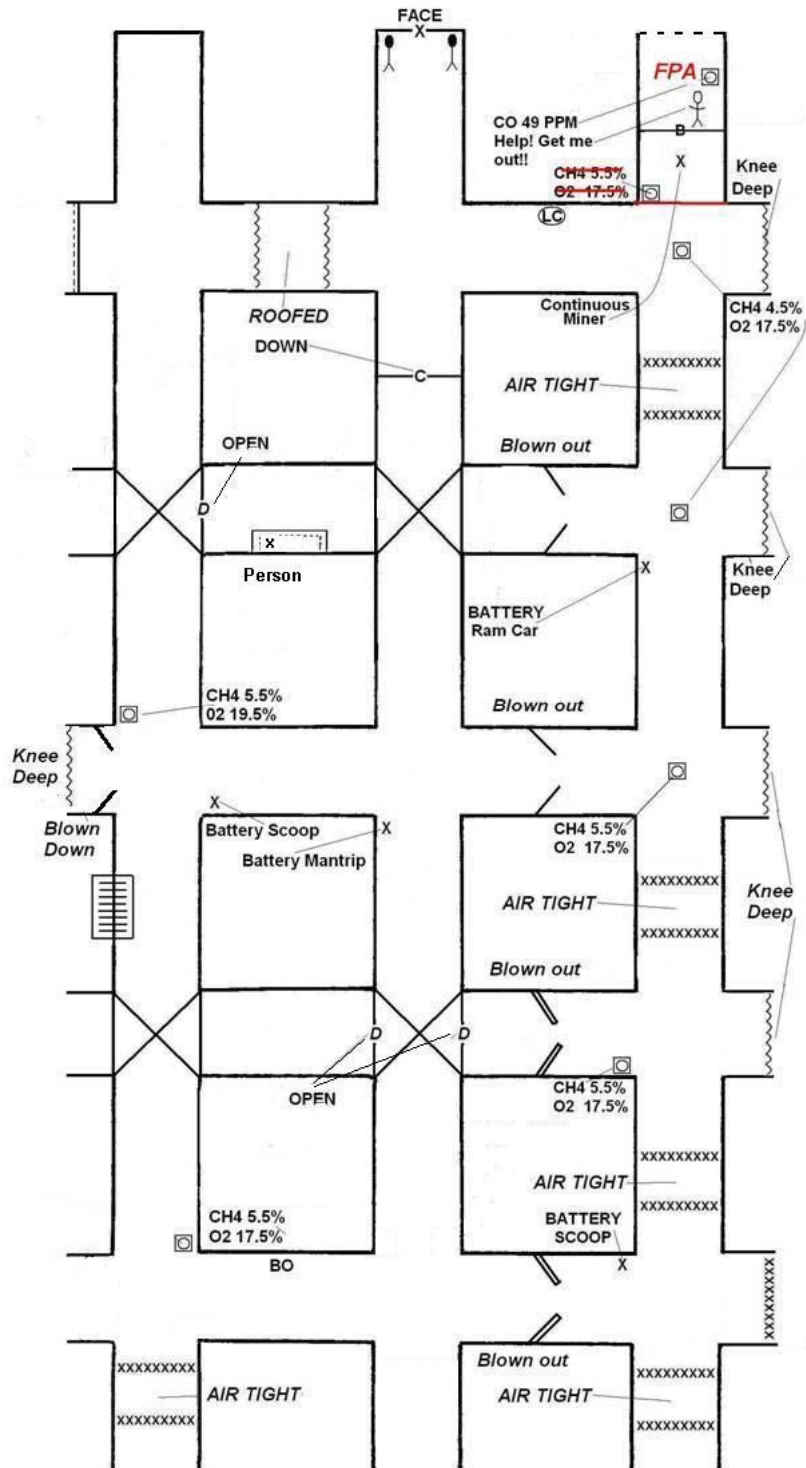


Ventilation builds for outby team

(Also showing on field builds)



Team must airlock into Barricade, rescue patient and then FPA at the CO placard and bring patient to fresh air base



PATIENT STATEMENT

Help ! Get me out !

Keys to Problem

Keep explosive mixtures from moving over batteries or unexplored areas

Must not send low O₂ over person in unsafe roof or briefing officer

There is only one way to ventilate problem correctly and many ways to ventilate incorrectly

Make sure outby areas have been ventilated properly

No one must pass CO placard inby barricade, captain should put FPA near CO placard and retreat to the FAB with conscious live man