



2017
KENTUCKY RIVER
MINE RESCUE CONTEST
DAY 2

MH

KENTUCKY RIVER MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT DAY 2
JUNE 14, 2017

Thank you for coming to help us. You are located at the fresh air base of the Haz-Co #1 mine. This is a very large mine with multiple working sections and interconnected fans and air courses.

A mine rescue team was able to explore to the area inby the area you will be exploring. They were stopped by water in the #1 entry by caved in the #2 entry and unsafe roof in number 3 entry. Another team was able to setup a safe return and intake inby that you can use to ventilate through. The fan ventilating this area is exhausting and will pull air through the area you will be exploring if you do not maintain an airlock or you can stall both fans if they are pulling or pushing against each other. The area is currently air-locked inby the fresh air base.

The air is currently going across the fresh air base and there is a safe return and intake outby that you can use to ventilate through. The fan is currently blowing.

The mine has a history of bad roof, water and methane. The mine maps are up to date. We have a competent life line person to give and take life line signals if necessary.

When the team is traveling they can only carry 1 timber per working team member and they must carry their own timber in their hand. Brattice cloth and line curtain must be either carried in the hand or on the stretcher. No throwing, kicking, pitching etc. of timbers, water pump, brattice cloth or line curtains by the team members.

Please find the 5 missing miners that were in this area of the mine that you will be exploring. Thank you and good luck.

PROBLEM DAY 2

DO NOT STALL EITHER FAN, AS IT WILL CAUSE DAMAGE TO THEM.

TO PREVENT STALLING ONE FAN HAS TO BE BLOWING AND THE OTHER EXHAUSTING WHEN USING BOTH FANS.

BOTH FANS MUST REMAIN RUNNING EXCEPT WHEN MAKING VENTILATION CHANGES BY REVERSING THE FANS.

THE RETURN AND INTAKE OUTBY THE FAB AND INBY AREAS HAVE BEEN EXPLORED AND IS SAFE TO VENTILATE THROUGH.

ACCOUNT FOR ALL 5 MISSING MINERS THAT ARE IN THE AREA YOU ARE EXPLORING AND BRING SURVIVORS TO THE FAB.

EXPLORE ALL AREAS OF THE MINE THAT CAN BE DONE SAFELY

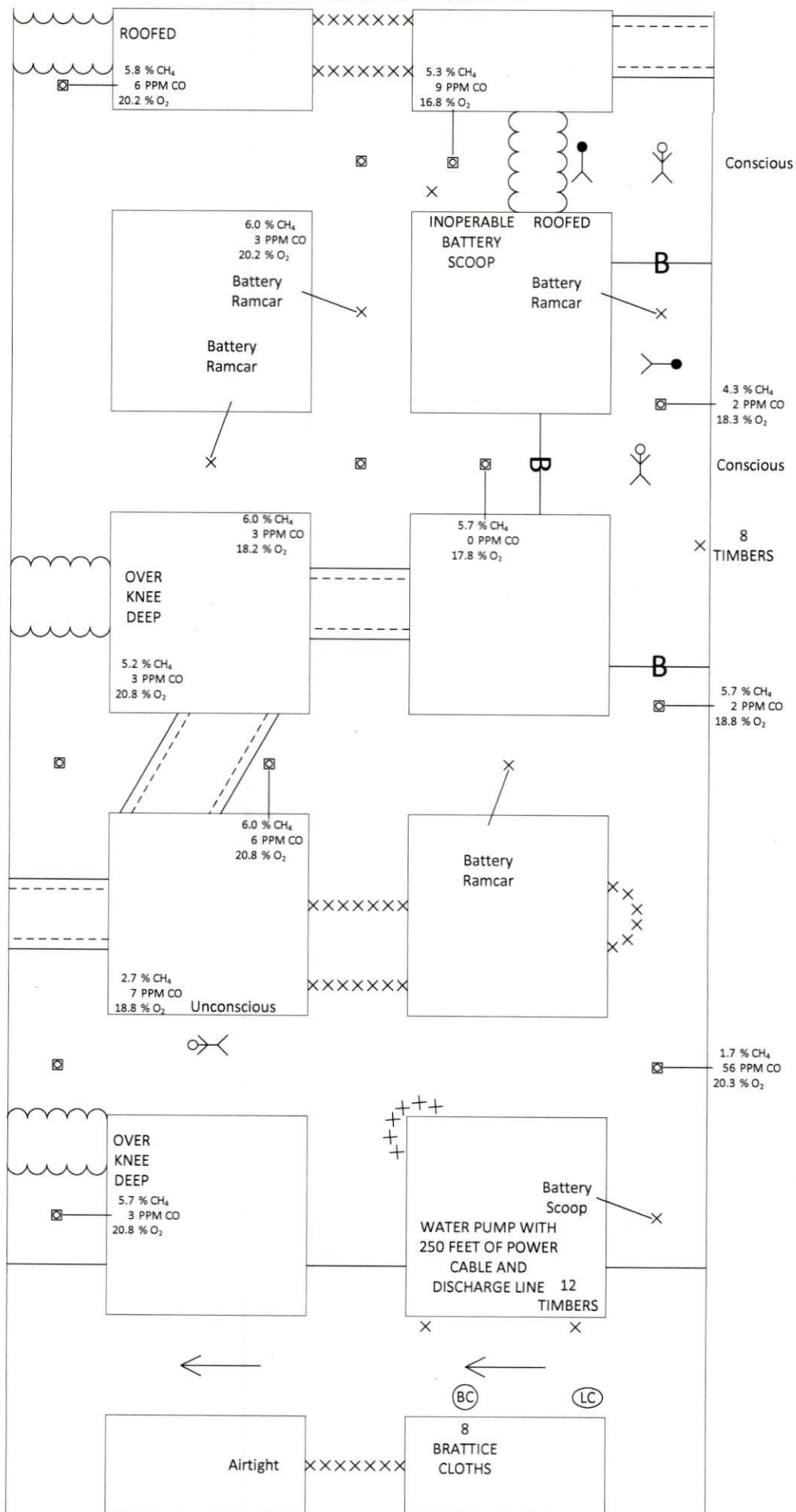
PATIENT STATEMENT 1

HELP!! GET ME OUT OF HERE.

PATIENT STATEMENT 2

**HELP!! GET ME OUT OF HERE, I
AM NOT FEELING WELL.**

KENTUCKY RIVER 2017 DAY 2 PROBLEM MAP



KENTUCKY RIVER MINE RESCUE CONTEST DAY 2
JUDGES BRIEFING

Number 1 entry GT DI Airlock GT inby stopping

Number 2 entry GT DI Airlock GT inby stopping

Number 3 entry GT DI Airlock GT inby stopping

The teams can enter either the #2 or #3 entry. We are setting this up as if they are entering number 3 entry first.

#1 Entry the team can make inby the stopping without advancing team. DI GT at water.

Team Stop before breaching stopping.

Team Check

Team Stop 1

Crosscut between 2 & 3 GT

Inby GT RR

Team Stop 2

RR intersection Zig - Zag

INBY GT DI

Crosscut between 1 & 2 GT Touch Patient Assess DI Take to FAB (If they take out #2 do not need oxygen if take out #3 must be under oxygen.

Outby GT DI

Team Stop 3

Inby GT DI RR

Outby GT DI

Team Stop 4

Patient 1 reads statement

Inby GT DI

Crosscut between 2 & 3 GT

Team Stop 5

Inby GT DI RR

Outby DI GT RR

Crosscut between 1 & 2 GT DI RR

The team can now timber into #1 entry or timber up the #2 entry.

Team Stop 6

Set timbers to get to team stop 6. RR on other side which ever one they timber through.

Inby GT DI

Crosscut between 2 & 3 RR GT DI or Outby RR GT DI

Team Stop 7

Set timbers to get to team stop 7 RR inby side.

Patient reads statement

Crosscut between 1 & 2 GT

Inby GT

Crosscut between 2 & 3 GT DI

Team Stop 8

Inby GT

Outby DI GT

Team Stop 9
Inby GT DI
Crosscut between 1 & 2 GT

Team Stop 10
Outby GT
Inby GT DI RR
Crosscut between 2 & 3 GT DI

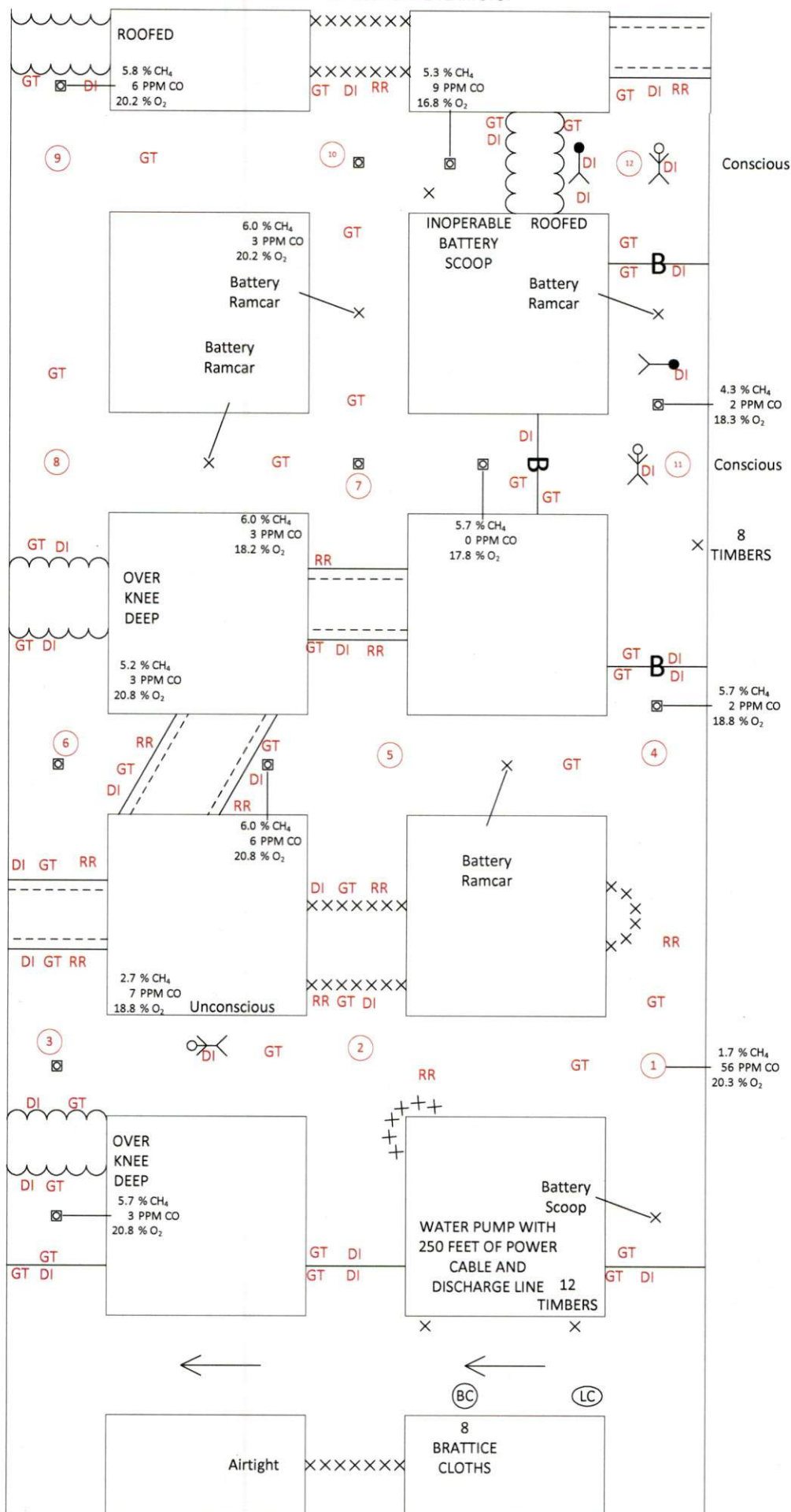
Pump 1
Vent 1
Pump 2
Vent 2
Vent 3

Team Stop 11
Entering Barricade GT
Patient 2 Reads Statement
Touch Patient Assess DI remove to FAB
Outby GT DI
Touch Body DI
Inby GT DI

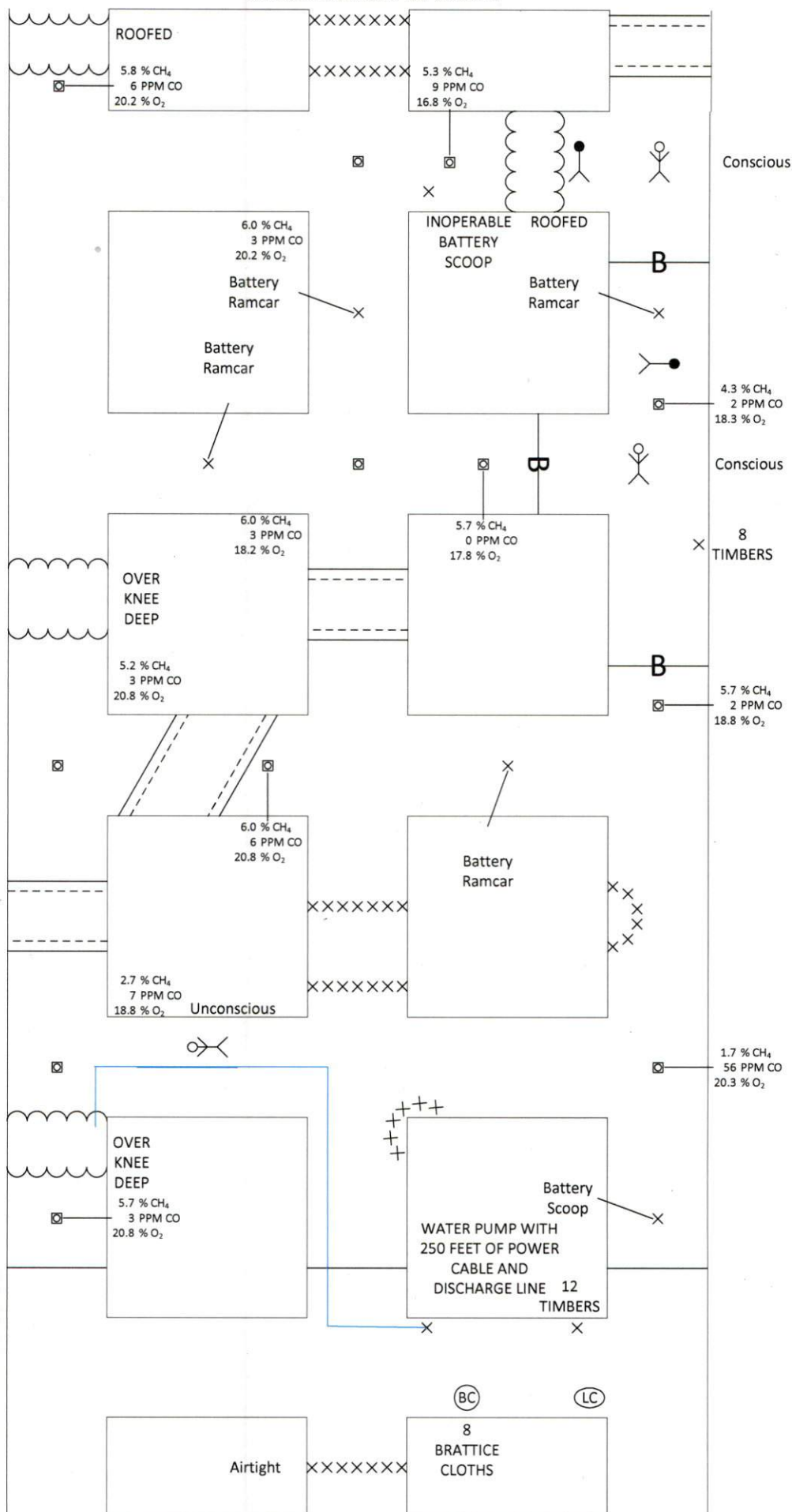
Vent 4
Vent 5

Team Stop 12
Entering barricade GT
Touch Patient Assess DI remove to FAB
Touch Body DI
Crosscut Between 2 & 3 GT DI
Inby GT DI RR STOP CLOCK

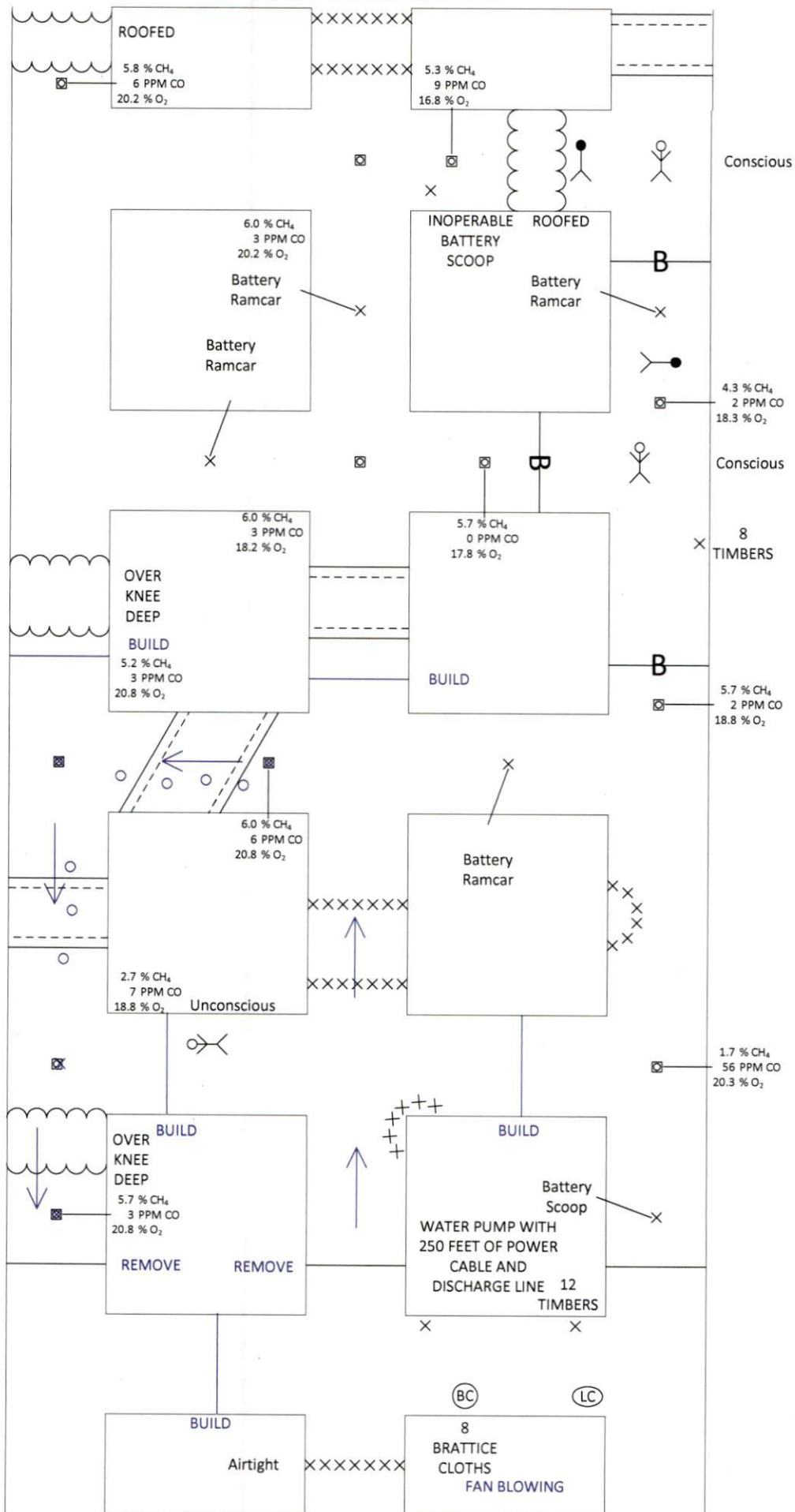
KENTUCKY RIVER 2017 DAY 2 TEAM STOP



KENTUCKY RIVER 2017 DAY 2 PUMP 1



KENTUCKY RIVER 2017 DAY 2 VENT 1



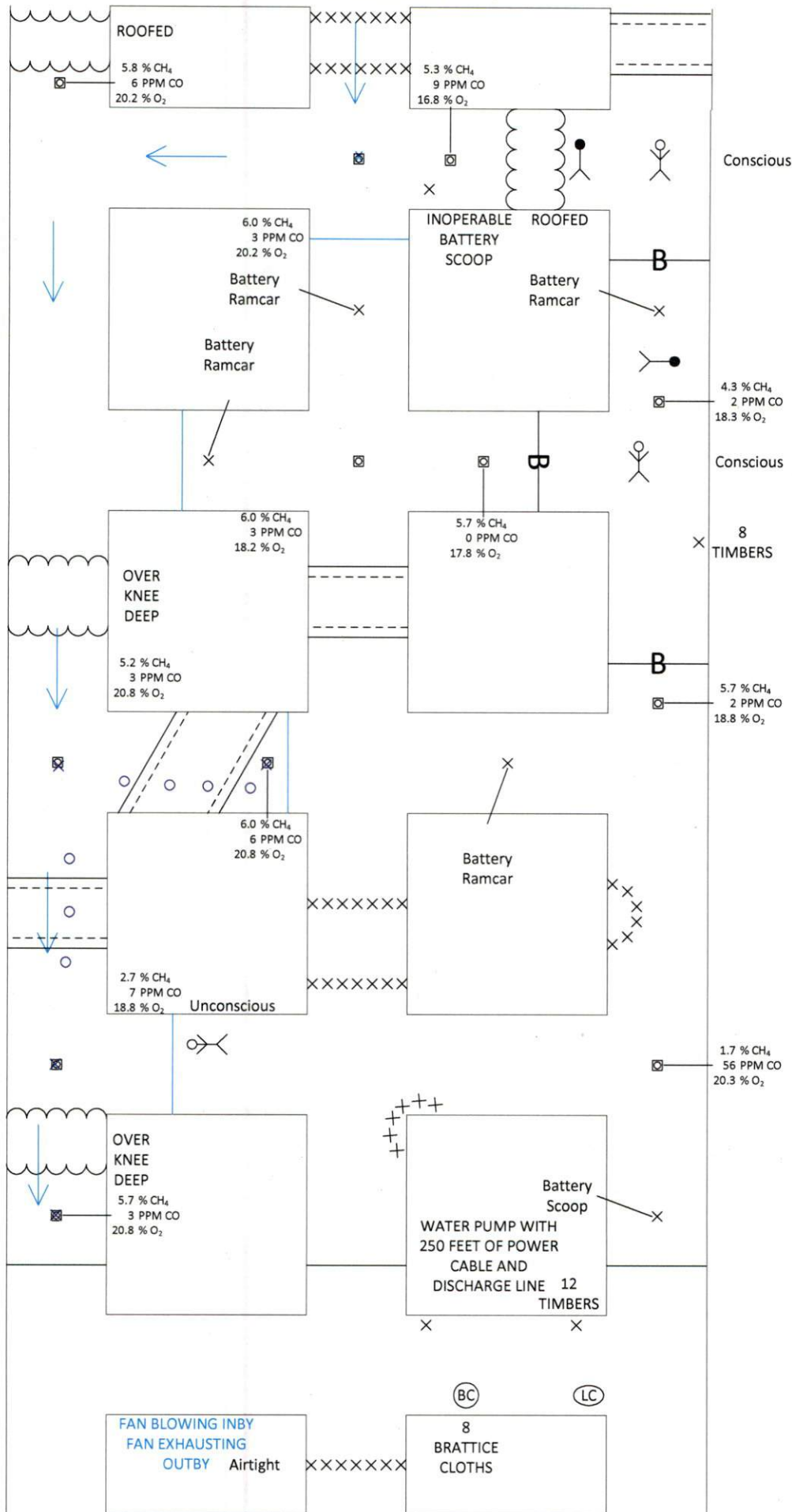
The diagram illustrates a mine layout with various rooms and air flow paths. The rooms and their associated gas concentrations are as follows:

- ROOFED**: 5.8 % CH₄, 6 PPM CO, 20.2 % O₂
- INOPERABLE ROOFED BATTERY SCOOP**: 5.3 % CH₄, 9 PPM CO, 16.8 % O₂
- Battery Ramcar** (top left): 6.0 % CH₄, 3 PPM CO, 20.2 % O₂
- Battery Ramcar** (top right): 4.3 % CH₄, 2 PPM CO, 18.3 % O₂
- OVER KNEE DEEP** (middle left): 5.2 % CH₄, 3 PPM CO, 20.8 % O₂
- OVER KNEE DEEP** (middle right): 5.7 % CH₄, 0 PPM CO, 17.8 % O₂
- Battery Ramcar** (bottom left): 6.0 % CH₄, 6 PPM CO, 20.8 % O₂
- Unconscious** (bottom left): 2.7 % CH₄, 7 PPM CO, 18.8 % O₂
- Battery Ramcar** (bottom right): 1.7 % CH₄, 56 PPM CO, 20.3 % O₂
- WATER PUMP WITH 250 FEET OF POWER CABLE AND DISCHARGE LINE**: 12 TIMBERS
- 8 BRATTICE CLOTHS**: 8 TIMBERS

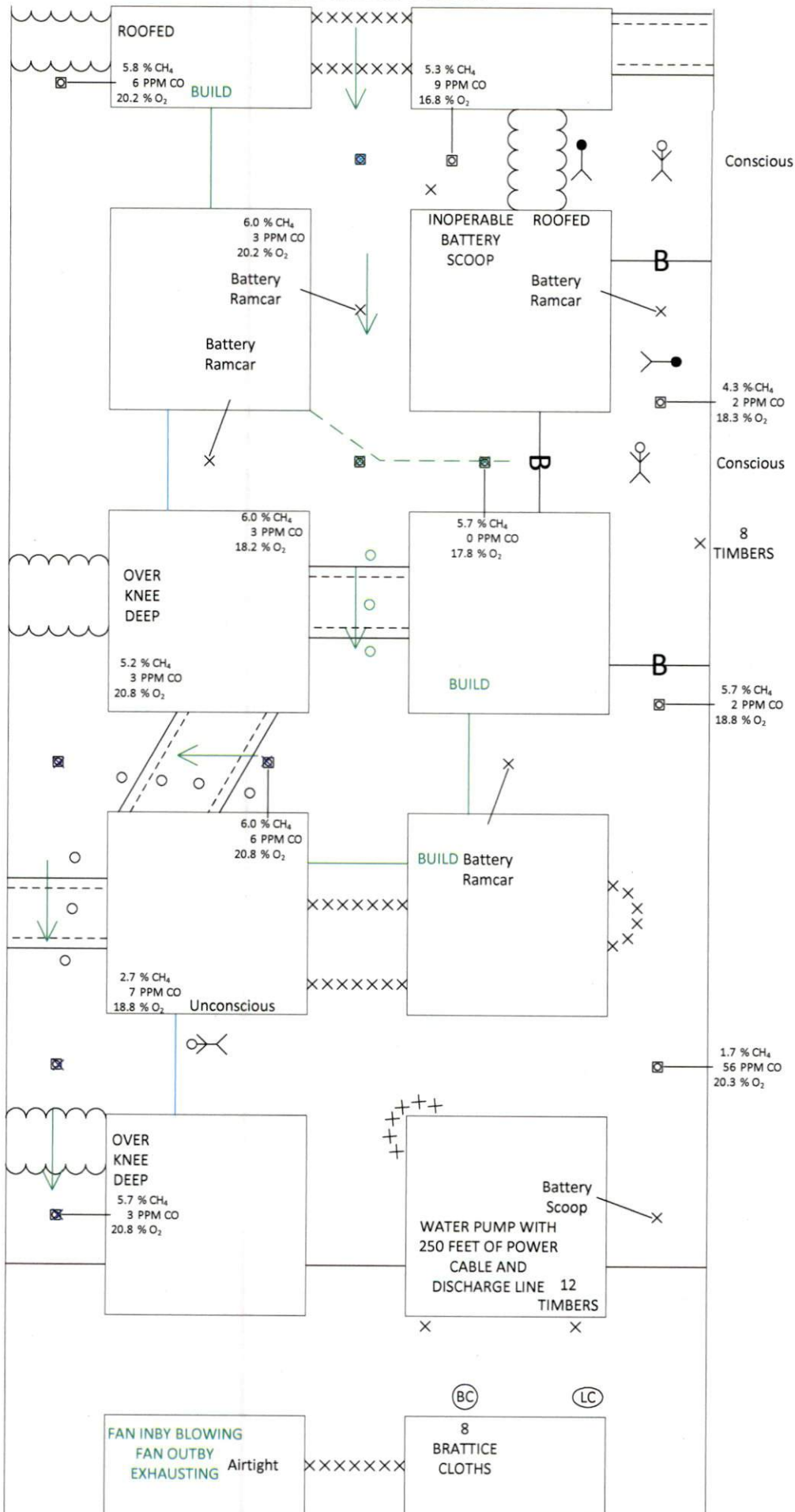
The diagram also shows air flow paths with arrows and symbols for gas concentrations (CH₄, CO, O₂). A status bar on the right indicates the status of the individuals in the mine:

- Conscious**: 8 TIMBERS
- Unconscious**: 12 TIMBERS

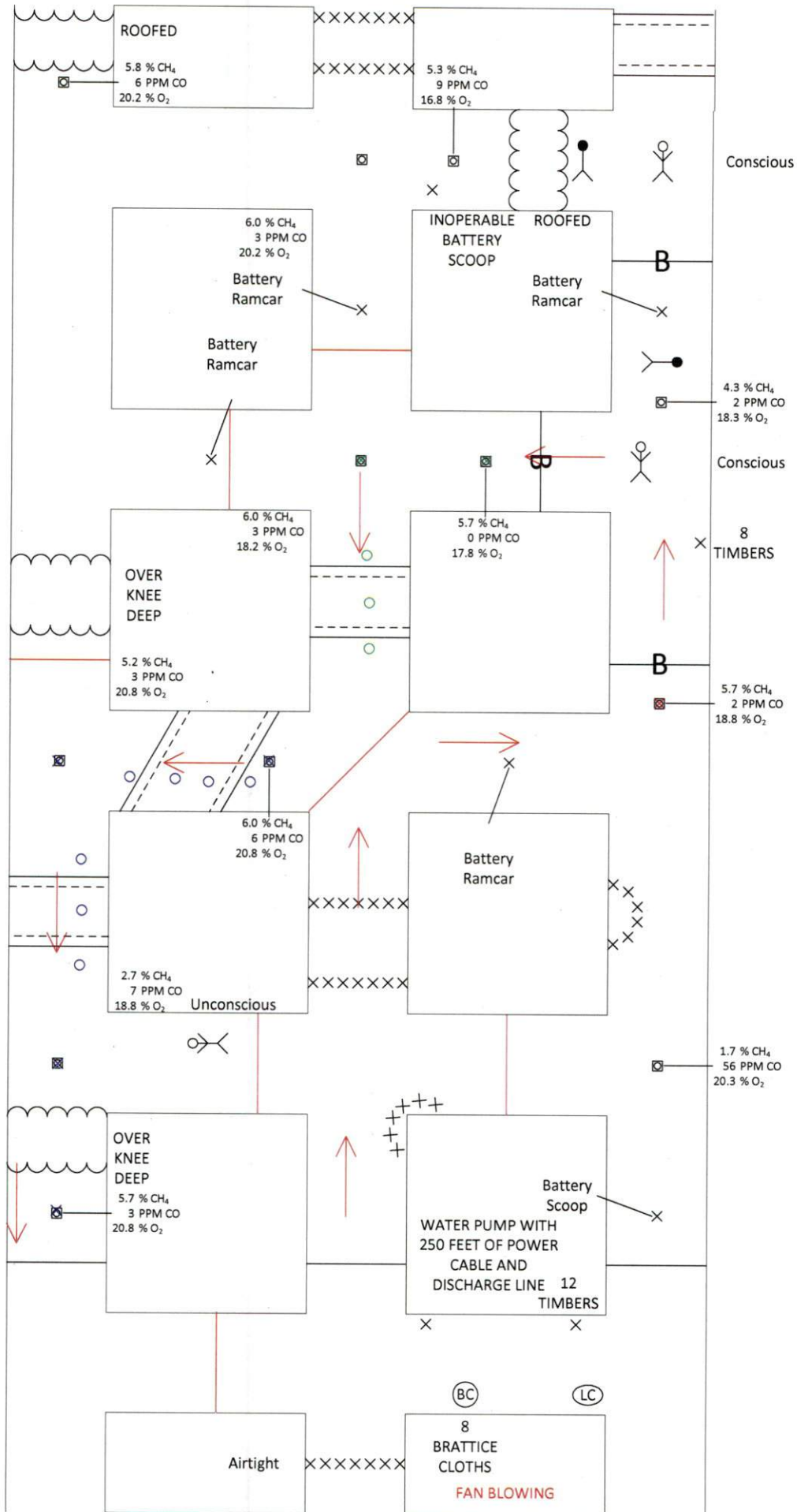
KENTUCKY RIVER 2017 DAY 2 VENT 2



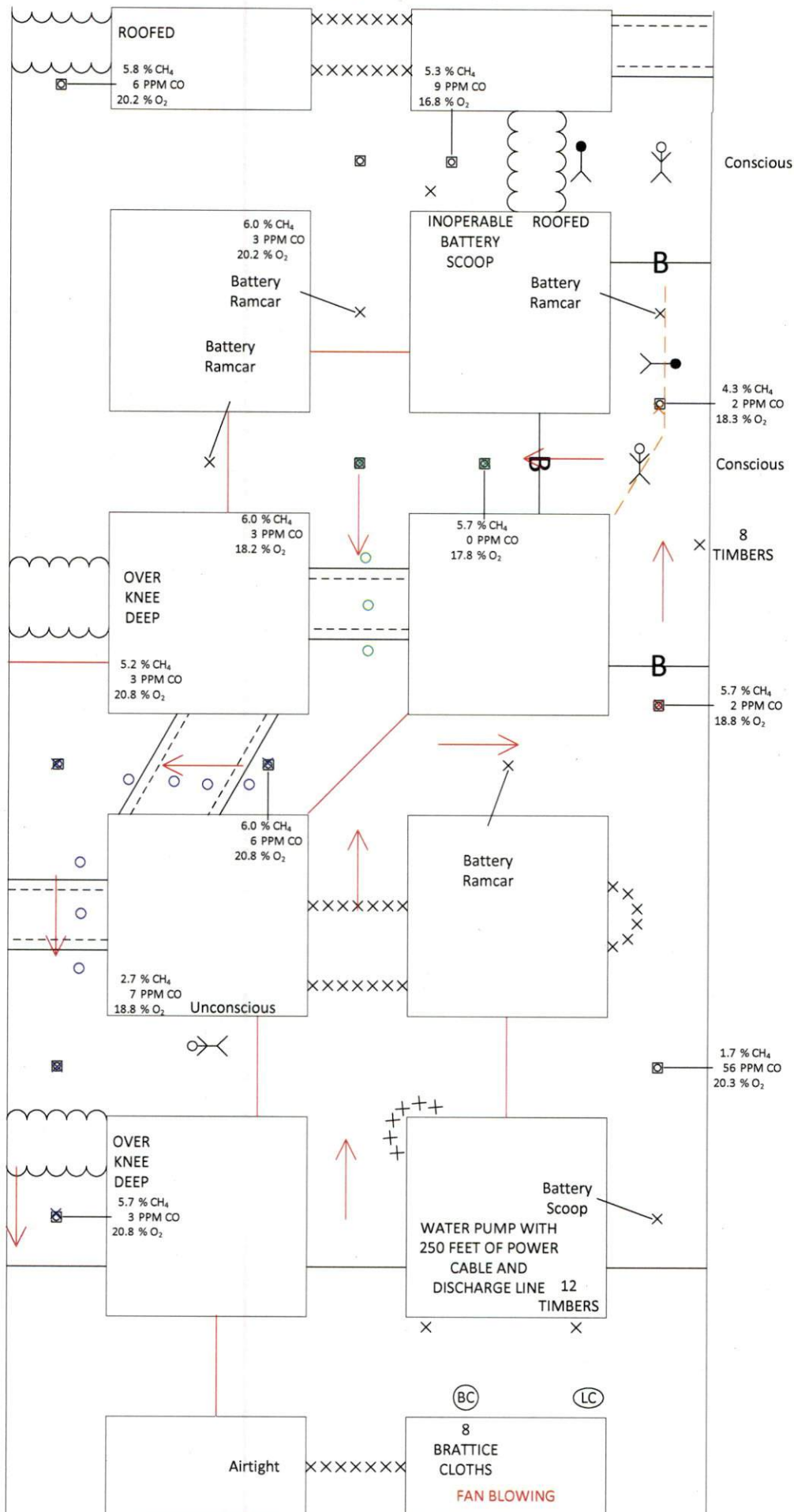
KENTUCKY RIVER 2017 DAY 2 VENT 3



KENTUCKY RIVER 2017 DAY 2 VENT 4



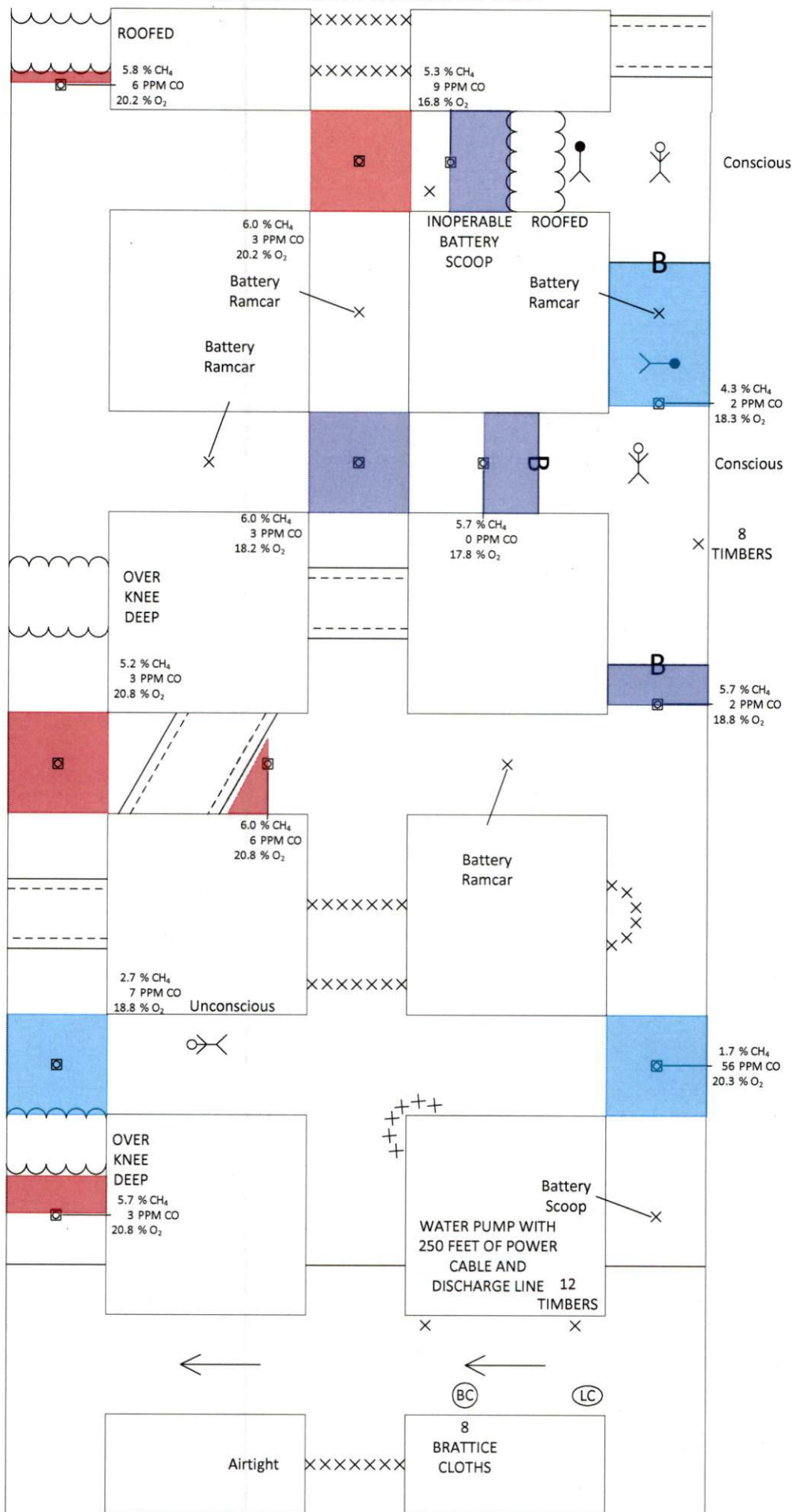
KENTUCKY RIVER 2017 DAY 2 VENT 5



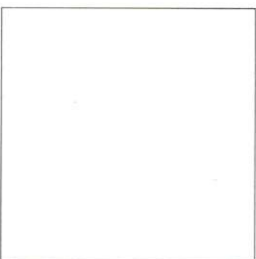
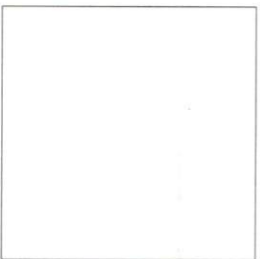
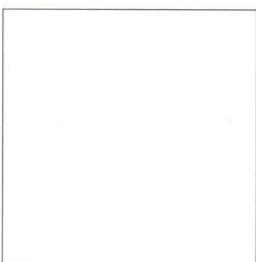
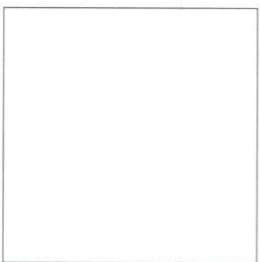
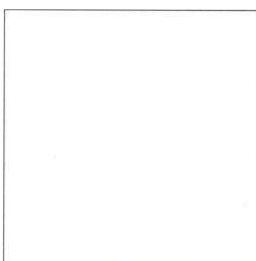
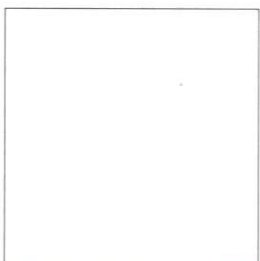
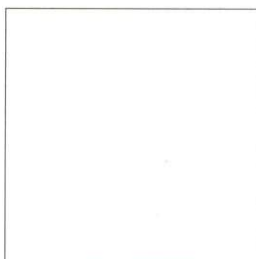
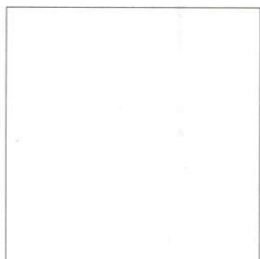
KENTUCKY RIVER 2017 DAY 2 FINAL MAP

☒ 5.8 % CH₄ 6 PPM CO 20.2 % O₂ RETEST Y ___ N ___	☒ 5.3 % CH₄ 9 PPM CO 16.8 % O₂ RETEST Y ___ N ___	
RETEST Y ___ N ___ 6.0 % CH₄ 3 PPM CO 20.2 % O₂		
RETEST Y ___ N ___ 6.0 % CH₄ 3 PPM CO 18.2 % O₂	☒ 5.7 % CH₄ 0 PPM CO 17.8 % O₂ RETEST Y ___ N ___	☒ RETEST Y ___ N ___ 4.3 % CH₄ 2 PPM CO 18.3 % O₂
5.2 % CH₄ 3 PPM CO 20.8 % O₂ RETEST Y ___ N ___		☒ RETEST Y ___ N ___ 5.7 % CH₄ 2 PPM CO 18.8 % O₂
☒ RETEST Y ___ N ___ 6.0 % CH₄ 6 PPM CO 20.8 % O₂		
2.7 % CH₄ 7 PPM CO 18.8 % O₂ RETEST Y ___ N ___		
☒ 5.7 % CH₄ 3 PPM CO 20.8 % O₂ RETEST Y ___ N ___		☒ 1.7 % CH₄ 56 PPM CO 20.3 % O₂ RETEST Y ___ N ___
INBY FAN BLOWING _____ EXHAUSTING _____	OUTBY FAN BLOWING _____ EXHAUSTING _____	

KENTUCKY RIVER 2017 DAY 2 EXTENT OF GASES



KENTUCKY RIVER 2017 DAY 2 BLANK MAP



ROOFED

WATER PUMP

12 TIMBERS

8 BRATTICE CLOTHS

Airtight

BC

LC