



2017
KENTUCKY RIVER
MINE RESCUE CONTEST
DAY 1

MH

KENTUCKY RIVER MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT DAY 1
JUNE 13, 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 1

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.

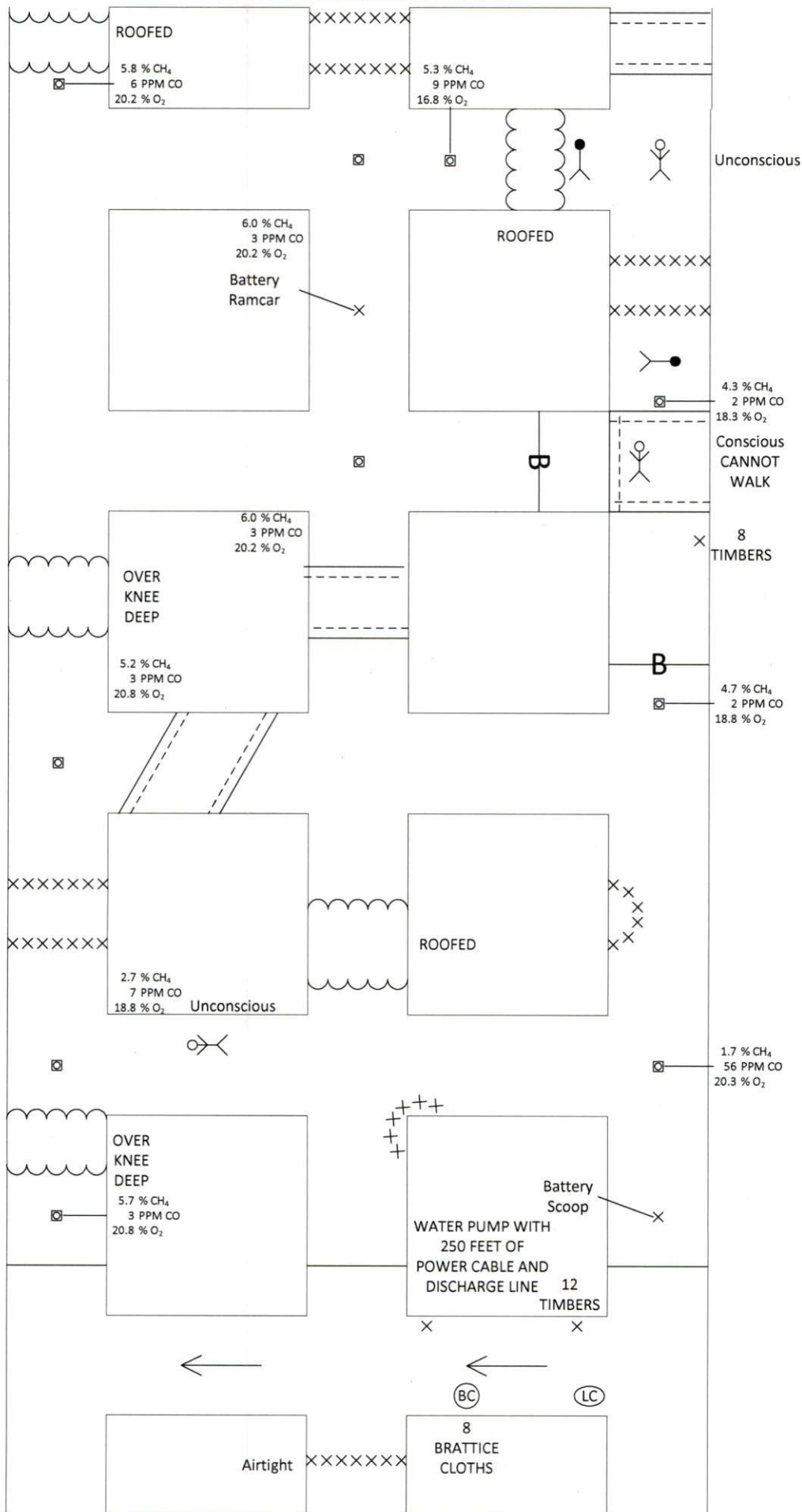
EXPLORE ALL AREAS OF THE MINE THAT CAN BE DONE SAFELY

PATIENT STATEMENT

HELP!! GET ME OUT OF HERE.

MY LEG IS HURT.

KENTUCKY RIVER 2017 DAY 1 PROBLEM MAP



KENTUCKY RIVER MINE RESCUE CONTEST DAY 1
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 reads statement

Inby GT DI

Crosscut between 2 & 3 GT

Team Stop 5

Inby GT DI RR

Outby DI GT

Crosscut between 1 & 2 GT DI RR

Vent 1

Pump 1 and Pump 2 either one first.

Vent 2

Team Stop 6

Entering barricade GT

GT DI RR

Set two rows of timbers to get patient.

Touch Patient Assess remove to FAB.

Captain has to set timbers on inby side and crosscut of the unsafe roof but does not have to go inby at this time.

Inby RR Touch Body DI Caved GT DI RR

Crosscut between 2 & 3 RR GT DI

Team Stop 7

Going through barricade GT

Crosscut between 1 & 2 GT

Inby GT

Outby GT DI RR

Team Stop 8
Inby GT
Outby DI GT

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

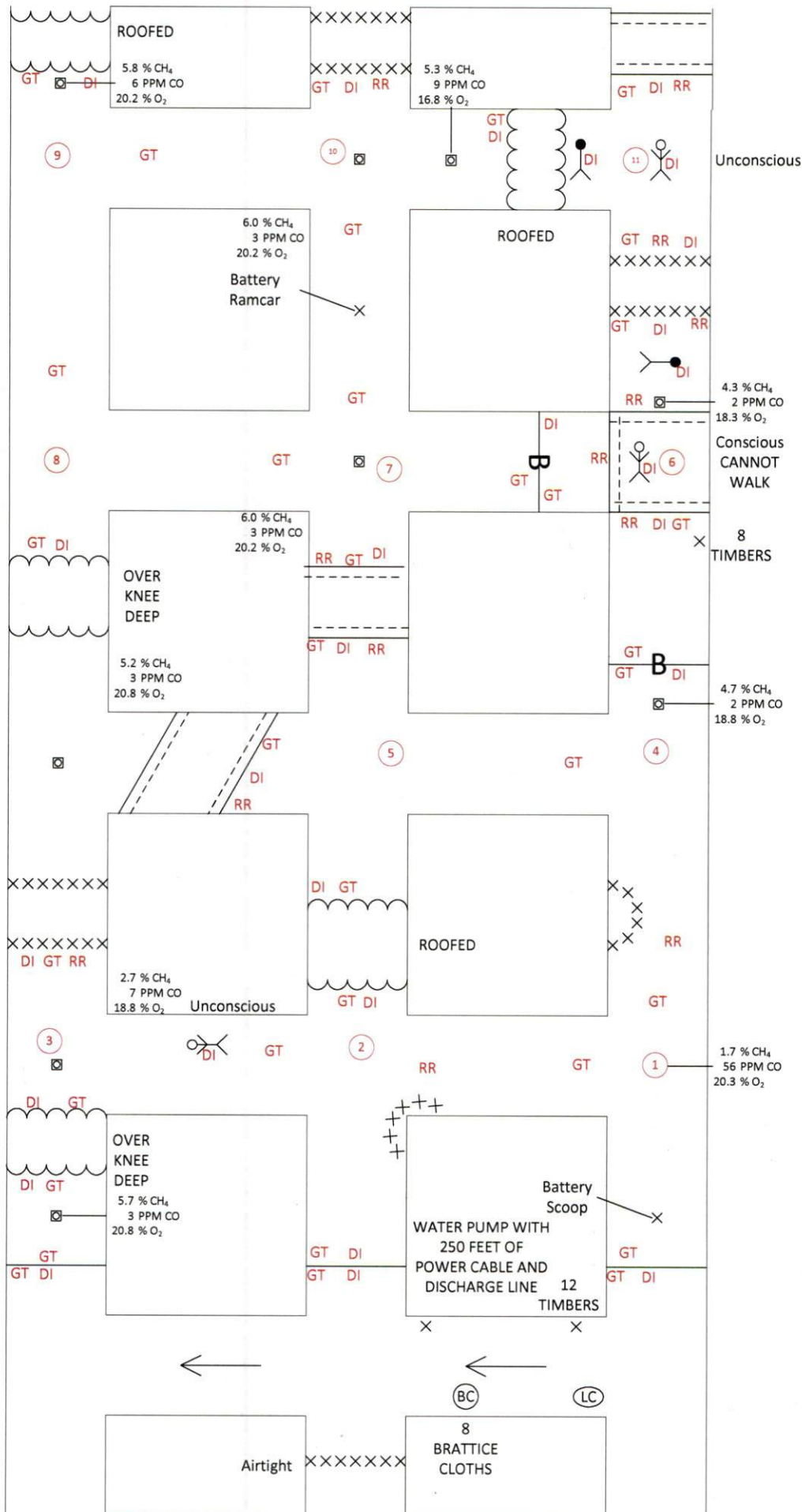
Team Stop 10
Outby GT
Inby GT DI RR
Crosscut between 2 & 3 GT DI

Vent 3 The team could also take gases on through crosscut and down the number 3 entry instead of setting timbers in number 2 entry.
Pump 3

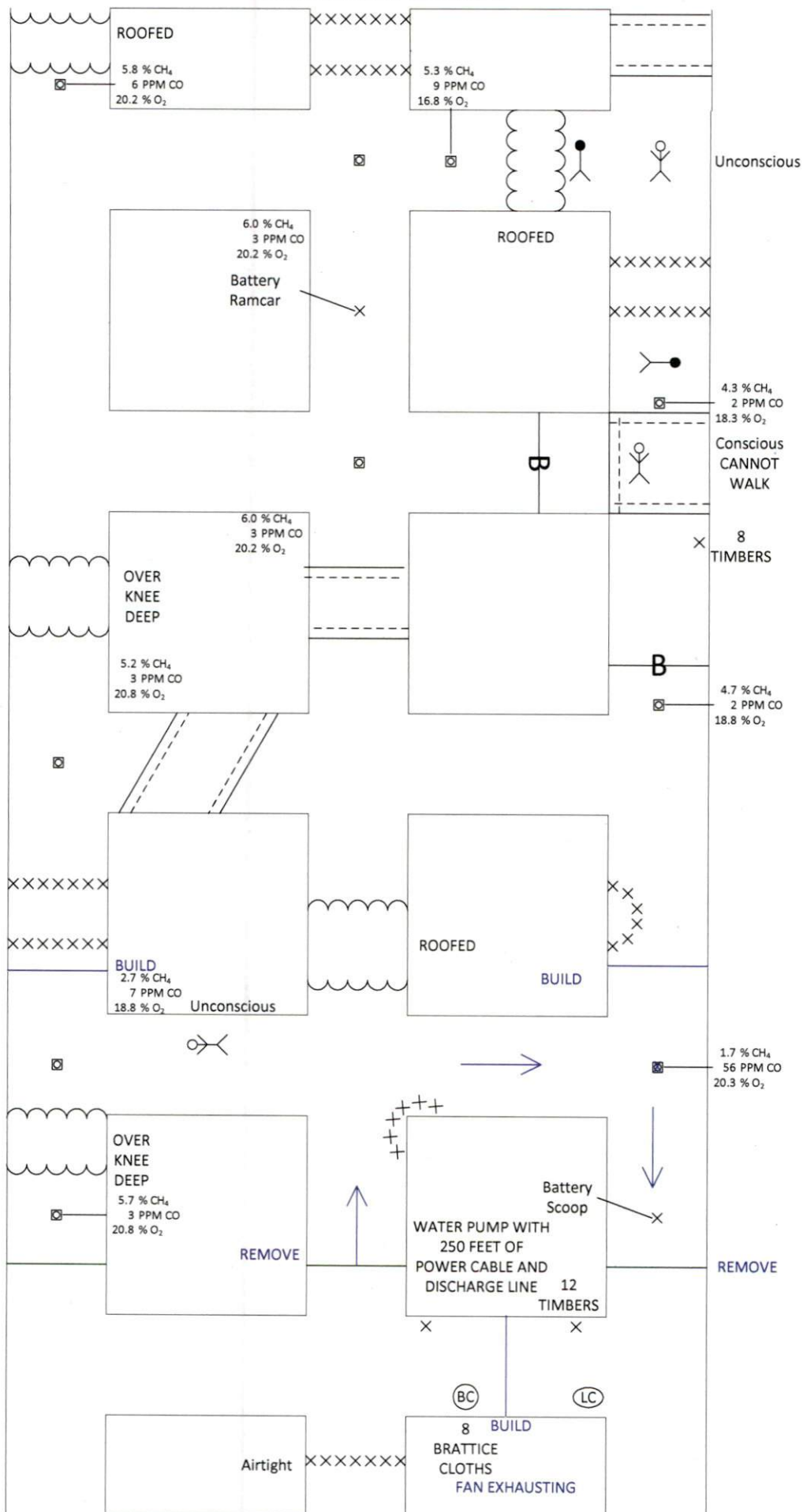
Team Stop 11
Touch Body DI
Touch Patient Assess DI remove to FAB
Outby GT DI RR
Inby GT DI RR

STOP CLOCK

KENTUCKY RIVER 2017 DAY 1 TEAM STOP



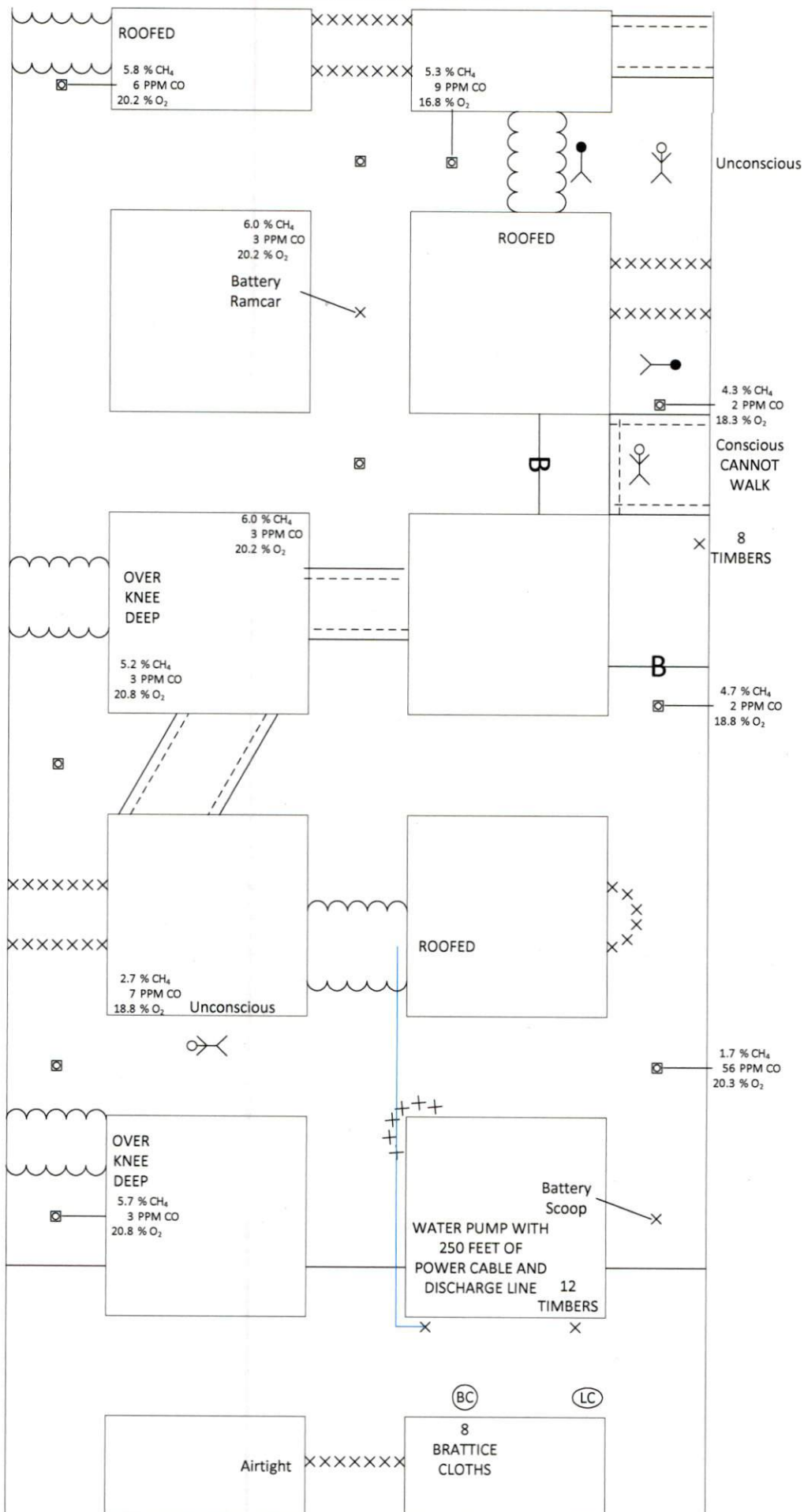
KENTUCKY RIVER 2017 DAY 1 VENT 1



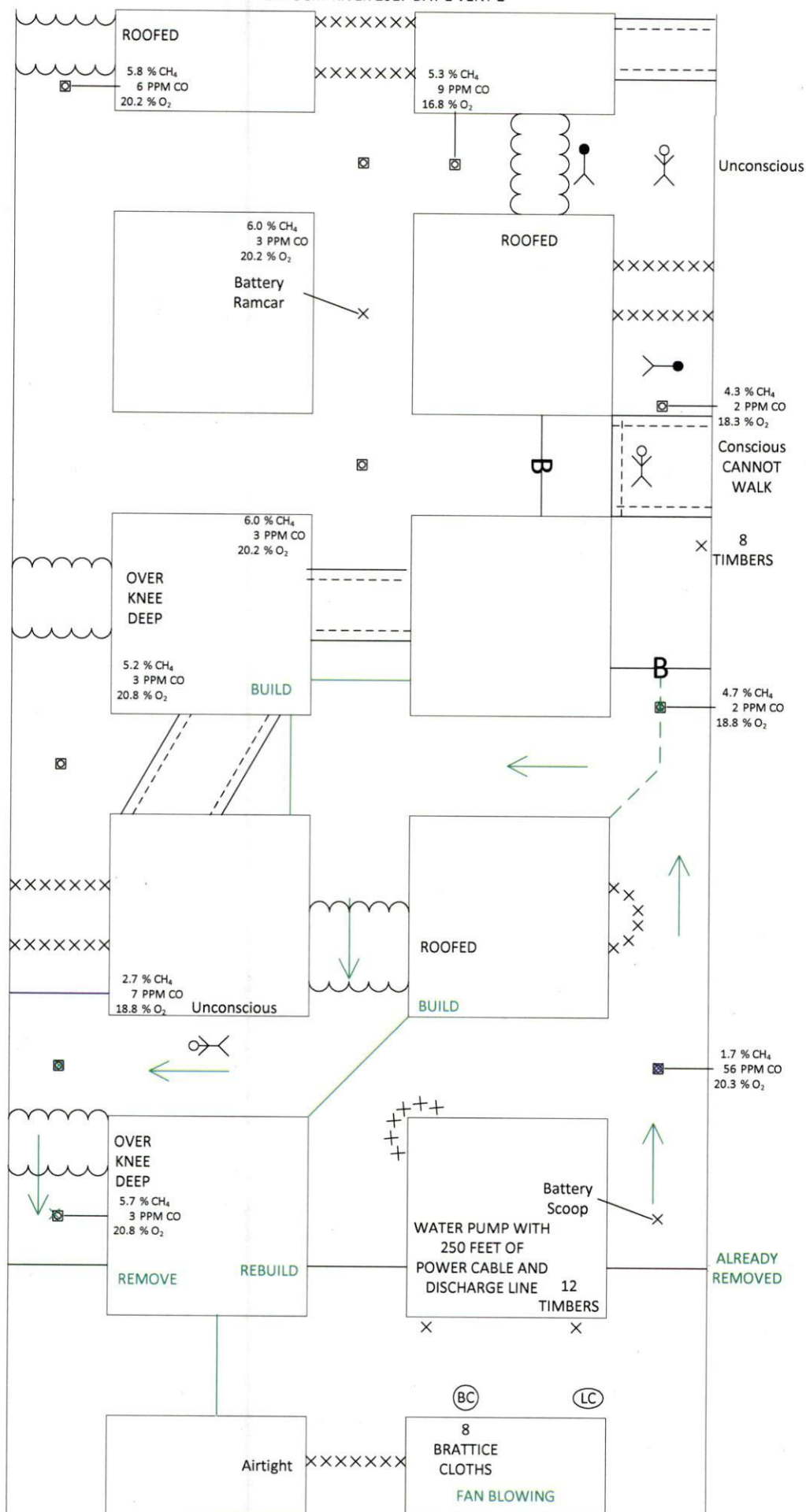
The diagram illustrates a mine layout with the following components and data:

- Top Left Room:** Labeled "ROOFED". Gas concentrations: 5.8 % CH₄, 6 PPM CO, 20.2 % O₂. A small square symbol is present.
- Top Right Room:** Labeled "ROOFED". Gas concentrations: 5.3 % CH₄, 9 PPM CO, 16.8 % O₂. A small square symbol is present.
- Middle Left Room:** Labeled "Battery Ramcar". Gas concentrations: 6.0 % CH₄, 3 PPM CO, 20.2 % O₂. A small square symbol is present.
- Middle Right Room:** Labeled "ROOFED". Gas concentrations: 4.3 % CH₄, 2 PPM CO, 18.3 % O₂. A small square symbol is present. A person icon is shown in a dashed box, labeled "Conscious CANNOT WALK".
- Bottom Left Room:** Labeled "OVER KNEE DEEP". Gas concentrations: 5.2 % CH₄, 3 PPM CO, 20.8 % O₂. A small square symbol is present.
- Bottom Middle Room:** Labeled "ROOFED". Gas concentrations: 2.7 % CH₄, 7 PPM CO, 18.8 % O₂. A small square symbol is present. A person icon is shown in a dashed box, labeled "Unconscious".
- Bottom Right Room:** Labeled "Battery Scoop". Gas concentrations: 4.7 % CH₄, 2 PPM CO, 18.8 % O₂. A small square symbol is present. A person icon is shown in a dashed box, labeled "Unconscious".
- Far Right Room:** Labeled "WATER PUMP WITH 250 FEET OF POWER CABLE AND DISCHARGE LINE". Gas concentrations: 1.7 % CH₄, 56 PPM CO, 20.3 % O₂. A small square symbol is present.
- Bottom Right Room:** Labeled "8 BRATTICE CLOTHS". A small square symbol is present.
- Structural Elements:** "8 TIMBERS" and "12 TIMBERS" are indicated near the bottom right rooms.
- Other Features:** "OVER KNEE DEEP" is labeled in two rooms. "Airtight" is labeled near the bottom left. "BC" and "LC" are labeled near the bottom right.

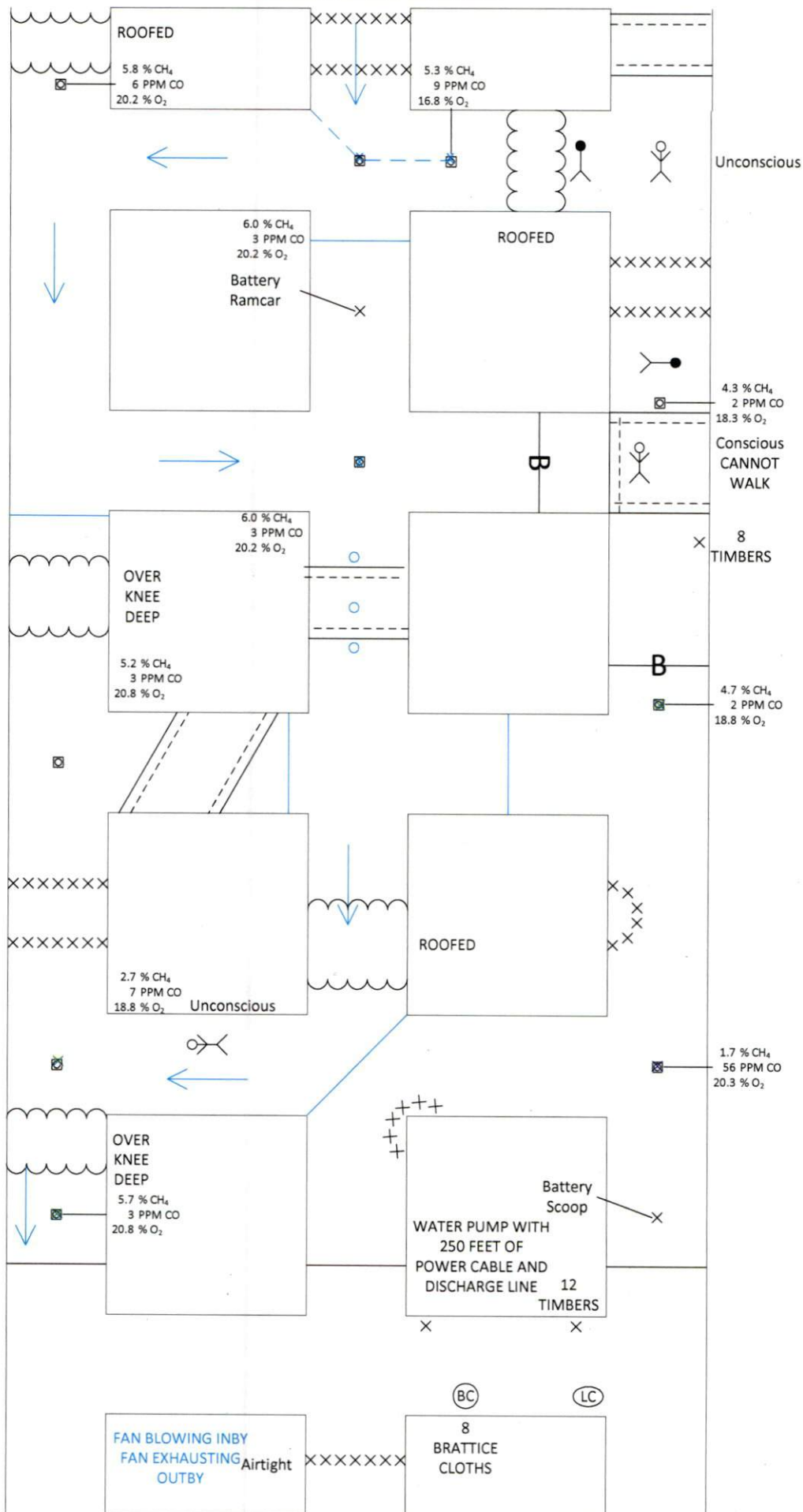
KENTUCKY RIVER 2017 DAY 1 PUMP 2



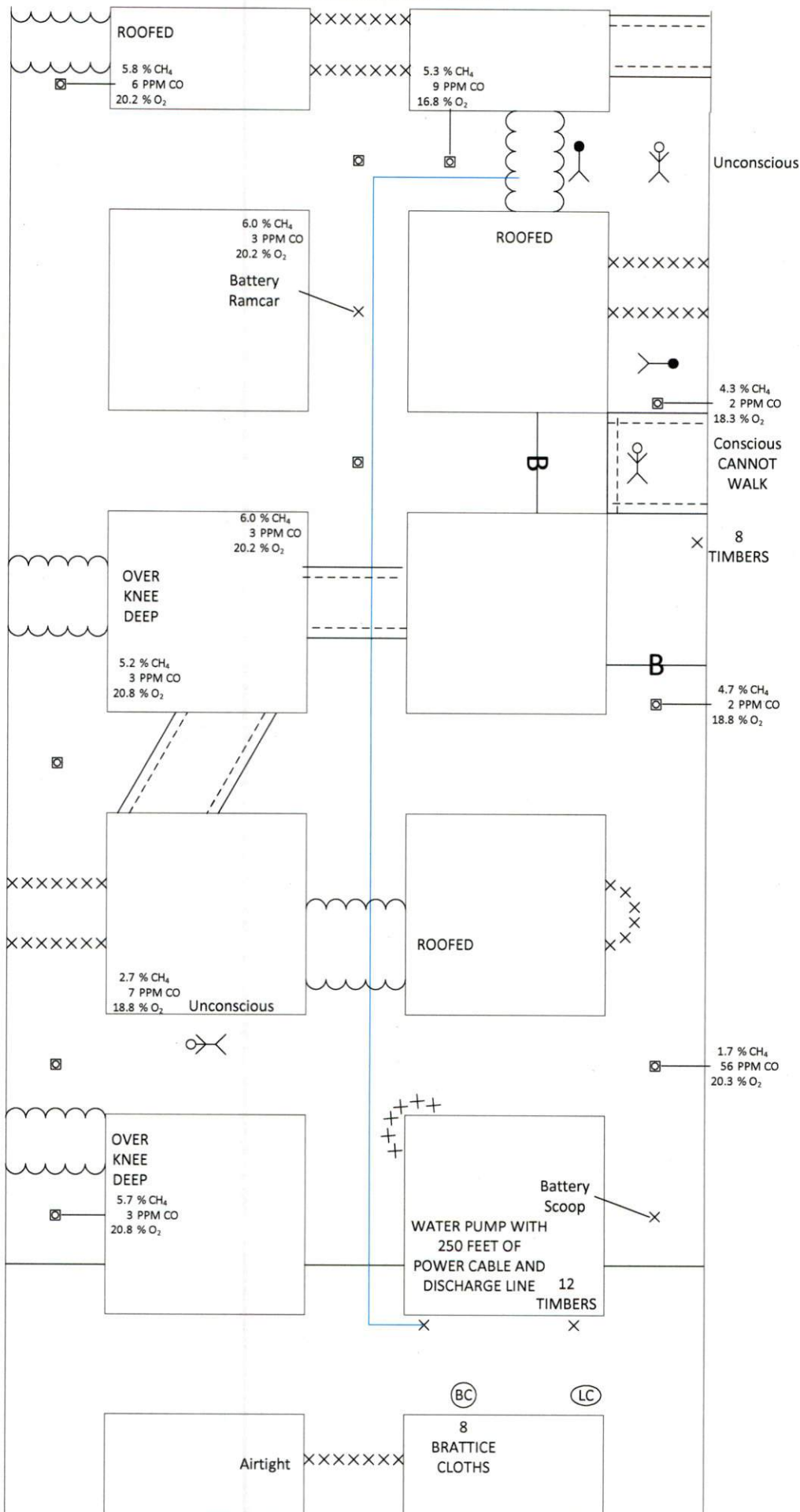
KENTUCKY RIVER 2017 DAY 1 VENT 2



KENTUCKY RIVER 2017 DAY 1 VENT 3



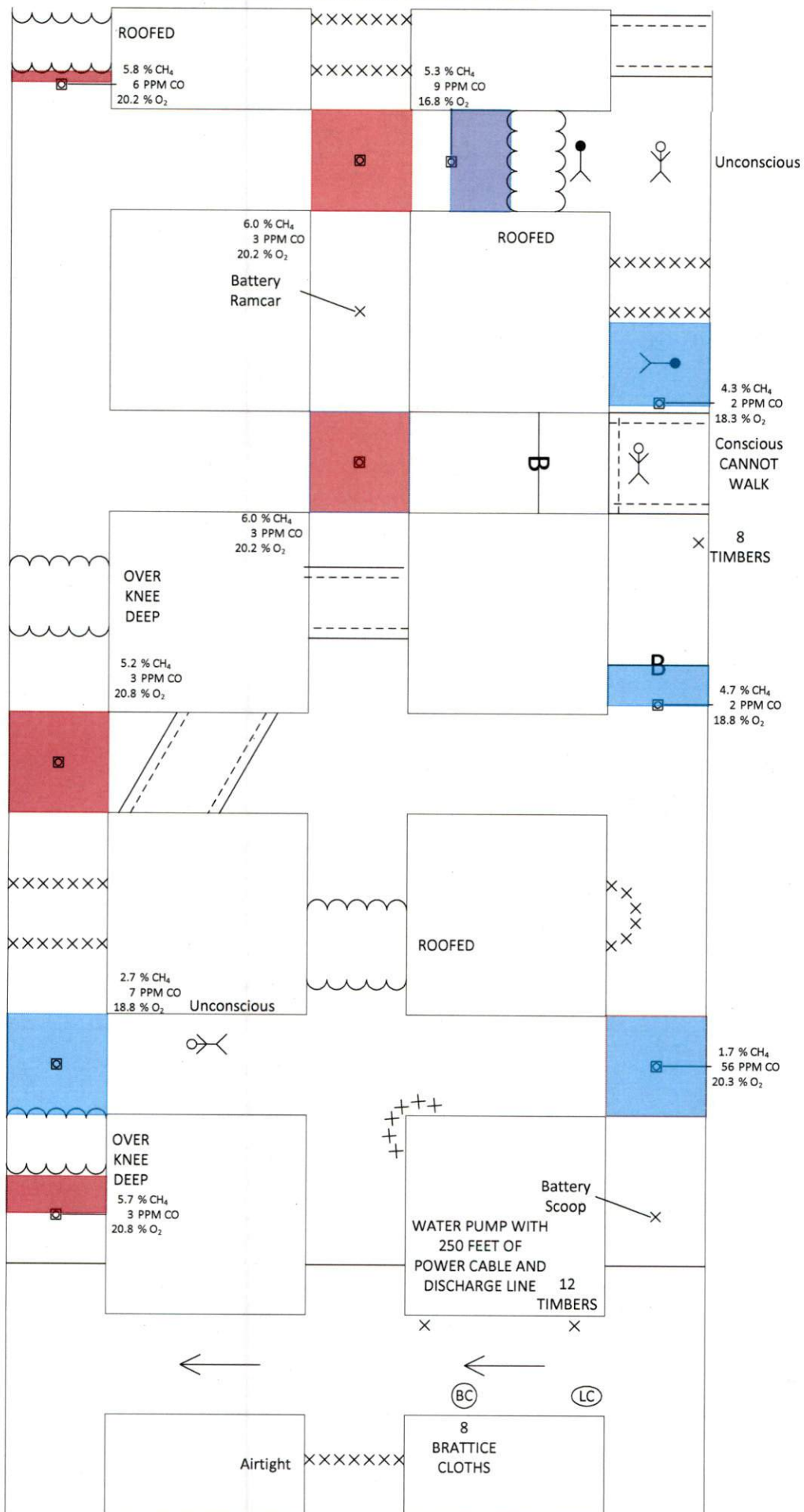
KENTUCKY RIVER 2017 DAY 1 PUMP 3



KENTUCKY RIVER 2017 DAY 1 FINAL MAP

<input checked="" type="checkbox"/> <div> 5.8 % CH₄ 6 PPM CO 20.2 % O₂ </div> <div> RETEST Y___ N___ </div>	<input checked="" type="checkbox"/> <div> 5.3 % CH₄ 9 PPM CO 16.8 % O₂ </div> <div> RETEST Y___ N___ </div>	
<input checked="" type="checkbox"/> <div> 6.0 % CH₄ 3 PPM CO 20.2 % O₂ </div> <div> RETEST Y___ N___ </div>		<input checked="" type="checkbox"/> <div> 4.3 % CH₄ 2 PPM CO 18.3 % O₂ </div> <div> RETEST Y___ N___ </div>
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<input checked="" type="checkbox"/> <div> 2.7 % CH₄ 7 PPM CO 18.8 % O₂ </div> <div> RETEST Y___ N___ </div>		<input checked="" type="checkbox"/> <div> 1.7 % CH₄ 56 PPM CO 20.3 % O₂ </div> <div> RETEST Y___ N___ </div>
<input checked="" type="checkbox"/> <div> 5.7 % CH₄ 3 PPM CO 20.8 % O₂ </div> <div> RETEST Y___ N___ </div>		
INBY FAN BLOWING ___ EXHAUSTING ___	OUTBY FAN BLOWING ___ EXHAUSTING ___	

KENTUCKY RIVER 2017 DAY 1 EXTENT OF GASES



ROOFED

WATER PUMP

12 TIMBERS

8 BRATTICE CLOTHS

Airtight

BC

LC

KENTUCKY RIVER 2017 DAY 1 BLANK MAP

