

# WKMI SAFETY DAYS

## NATIONAL MINE RESCUE CONTEST

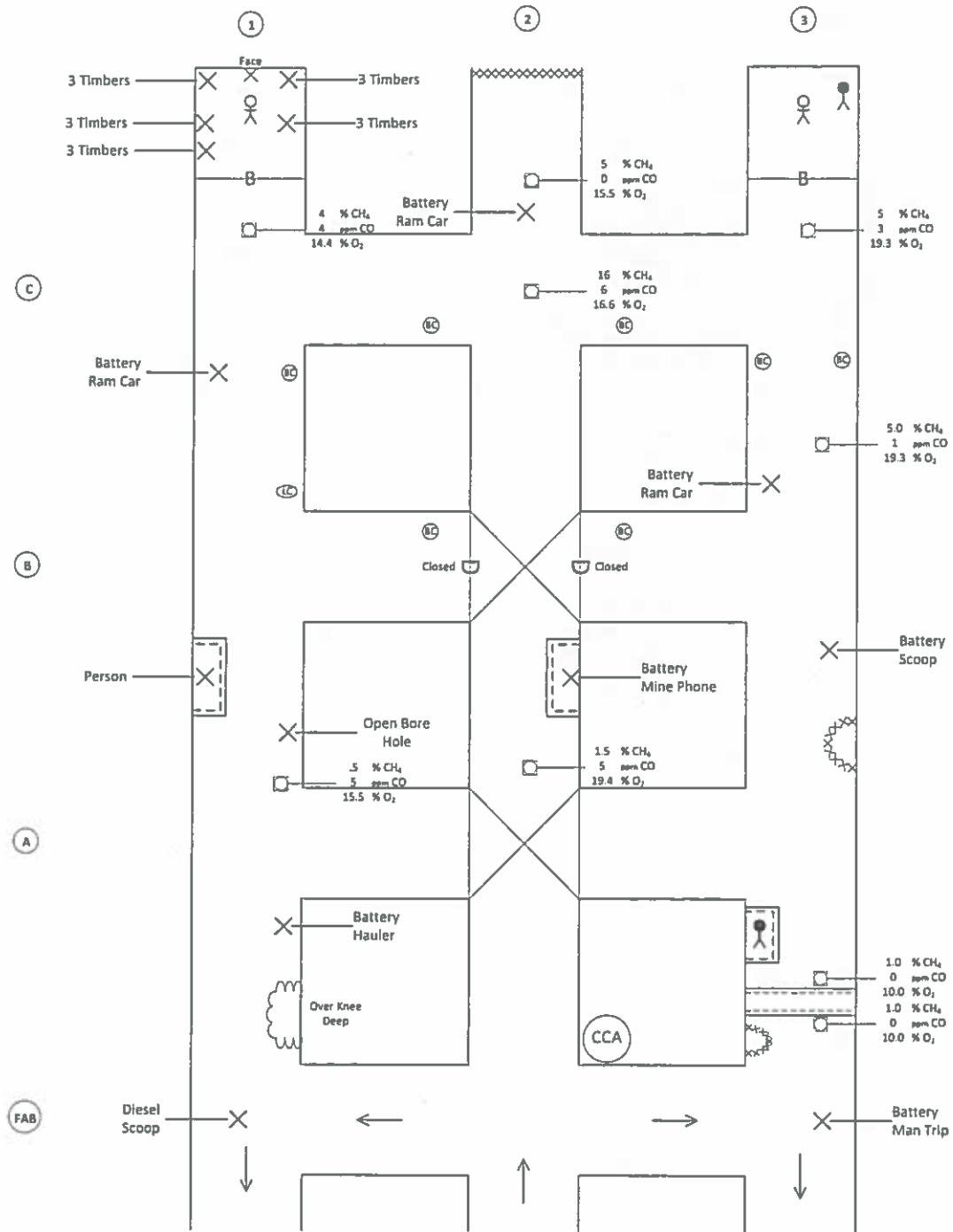
May 23, 2018

Thanks for answering our call for help! You have arrived at the Fresh Air Base that the previous team has established. We have just finished getting all the communications established with the Command Center.

The exhausting fan is on and is located on the surface. This is one of our split air sections where our intake air comes up the #2 entry. Our #1 & #3 entries are the return entries that are connected outby through a series of overcast. We have had some trouble with this area of the mine. We have been encountering an unusual amount of bad top, methane and low O<sub>2</sub>. Near the end of second shift the foreman called out and said that he thought we may be close to some old works. He sent everyone out except for the unit helper, the miner man and a two roof bolter operators. He told the scoop operator to tell the third shift mine foreman that they were going to finish cutting the face of the # 2 entry and that he would be out in a little while. The surveyors were going in to catch up on their mapping but they encountered low O<sub>2</sub> in every entry. They came out and told the third shift mine foreman what they found. The third shift mine foreman tried to contact the section but was unsuccessful, so he activated our Emergency Response Plan. All the power in the inby this area has been disconnected locked and tagged out and is being guarded. The mine is walking height. All of the regulatory agencies have been notified and have their personnel here. There are additional mine rescue teams here to serve as your back up. This is not a very big mine please help us find our missing miners. GOOD LUCK & BE CAREFUL!

# **MINE RESCUE WRITTEN INSTRUCTIONS**

- **ACCOUNT FOR ALL MISSING PERSONS**
- **BRING SURVIVORS TO THE FRESH AIR BASE**
- **CHECK FOR I.D. TAGS ON ALL BODIES**
- **THE MINE FAN CANNOT BE STOPPED, STALLED OR REVERSED**
- **EXPLORE ALL AREAS OF THE MINE IF MATERIALS ARE AVAILABLE AND IT CAN BE DONE SO SAFELY.**



# TEAM

## PROBLEM MAP

## 2018 WKMI NATIONAL MINE RESCUE CONTEST

MAY 23, 2018

### WORKING PROCEDURES:

When the team enters the Fresh Air Base, the Superintendent will introduce himself to the team captain. The Briefing Officer and the Command Center Attendant will report directly to the command center. The team will then have 4 minutes to arrange their equipment, lay out their lifeline etc. If the team captain does not start the clock within 4 minutes the Superintendent will start the clock. The team does not have to unload and test stretchers. They must however check their gas detectors after the clock has started as well as their communications between the team and the command center. Teams must go over standard lifeline signals with the lifeline judges unless wireless communications are used. Time for the briefing officer and the command center attendant to get set up is included in the 4 minute time.

### F.A.B.,

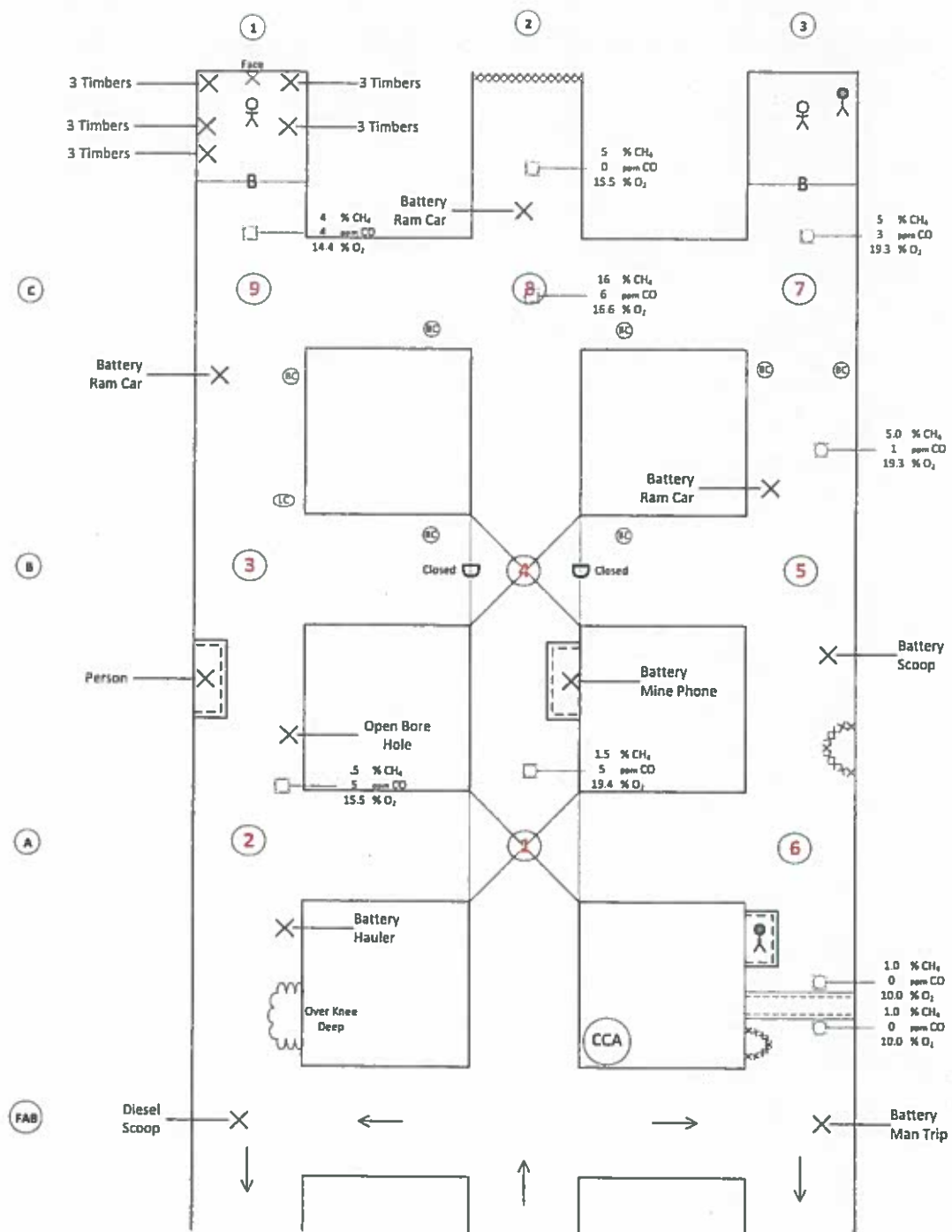
The team is located at the underground F.A.B. The team should make the three entrances prior to the team advancing inby.

**In the FAB,** the team will find that the ventilation comes up the #2 entry and that the #1 & #3 entries are the return. In the intersection of the #1 entry the team will find an diesel scoop, in the intersection of the #3 entry the team will find a battery man trip.

**In the #1 entry,** the team will find an area of over knee deep water on the right rib, inby the team will find a battery hauler on the right rib, a GT is required in this area.

**In the #2 entry,** the team will not find anything, a GT is required in this area.

**In the #3 entry,** the team will find a caved area on the left rib, then the team will find an irrespirable atmosphere extending into an area of unsafe roof that extends across the entry where an R&R, the captain's D&I and a GT are required at the unsafe roof.



# TEAM

TEAM STOP MAP

### **TEAM STOP #1**

At team stop #1(#2 entry), an apparatus check must be made with all team members underground. On the left the team will find the wall of an overcast at which the captain's D&I, and a GT are required. On the right the team will find the wall of an overcast at which the captain's D&I, and a GT are required. Inby the tam will encounter an irrespirable atmosphere that extends into the inby intersection. On the right the team will find an elongated area of unsafe roof with a battery mine phone in it a zig zag R&R and a GT is required in this area. (The team must enter the #2 entry because of the irrespirable that extends into the unsafe roof in the #3 entry.)

### **TEAM STOP #2**

At team stop #2 (#1 entry) In the x-cut to the left the team will find the wall of an overcast, at which the captain's D&I & a GT are required. Inby the team will find an irrespirable atmosphere extending to an open bore hole on the right rib, then on the left rib the team will find an area of elongated unsafe roof with a person in it, a zig zag R&R and a GT are required at this area.

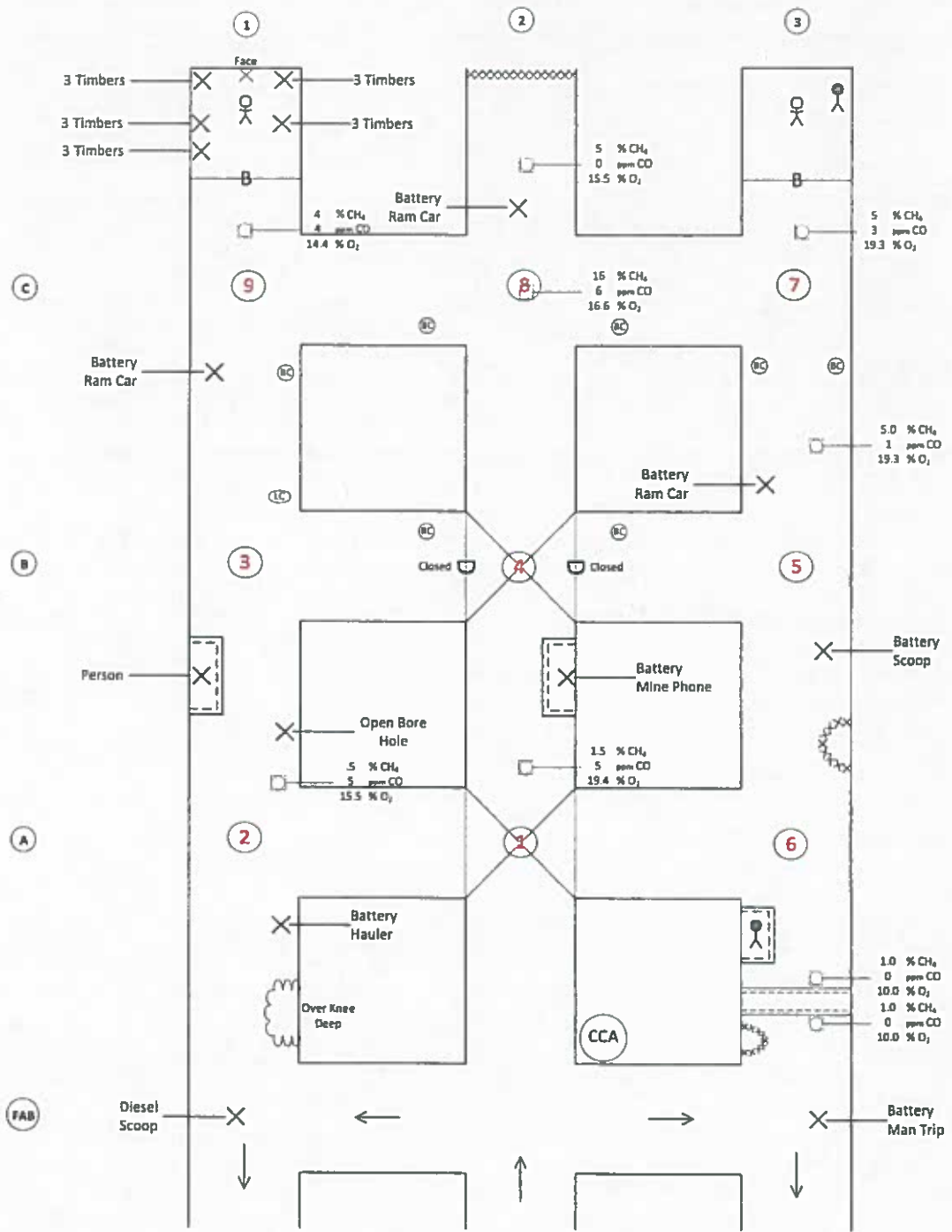
### **TEAM STOP #3**

The team will travel inby up the #1 entry to the next intersection. Inby the team will find a line curtain & brattice cloth on the right rib, on the left rib the team will find a battery ram car. A GT is required in this area. To the right the team will find a brattice cloth on the inby rib, then the team will find the wall of an overcast with a door that is closed, the captain's D&I and a GT is required at this location. At This Point The Team Has Two Options

(Because of the two cross cut limit the team needs to make the area between the FAB and X-Cut A in the #3 entry before advancing inby.)

#1. Airlock and travel through the door in the overcast to team stop #4.

#2. Travel back to the FAB and travel up the #2 entry to team stop #4.



TEAM

TEAM STOP MAP

#### **TEAM STOP #4**

If the team travels up the #2 entry they will find the wall of overcast with a door that is closed on the left, the captain's D&I and a GT are required at this location. On the right the team will find the wall of an overcast with a door that is closed, the captain's D&I and a GT are required at this location. Inby the team will not encounter anything, a GT is required in this area. At this point the team should air-lock and go to the #3 entry. When the team air-locks through the overcast door on the right they will find a brattice cloth on the inby rib.

#### **TEAM STOP #5**

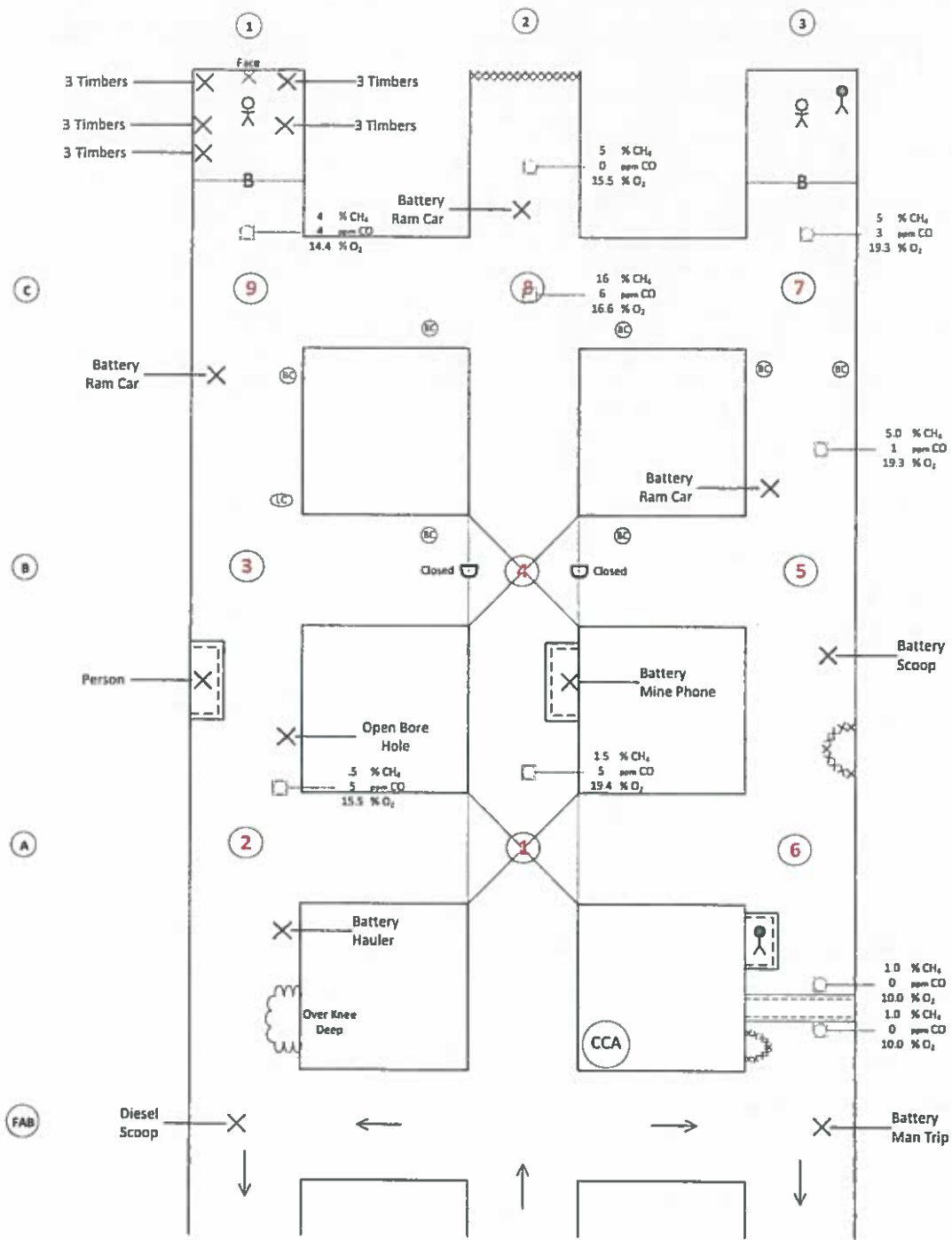
At team stop #5, inby the team will find a battery ram car on the left rib, just inby that the team will find an explosive and irrespirable atmosphere that extends into the intersection of C X-Cut, a GT is required in this area. Out-by the team will find a battery scoop, out-by the battery scoop on the solid rib the team will find a caved area, a zig-zag R&R is required at this area, a GT is required in this area.

#### **TEAM STOP #6**

At this stop to the right the team will find the wall of overcast, the captain's D&I and a GT are required at this location. Out-by the team will find an area of elongated unsafe roof with a body in it, a zig zag R&R is required at this location, out by that the team will find an irrespirable atmosphere extending into an area of unsafe roof that extends across the entry, a R&R, the captain's D&I and a GT is required at this location. At This Point The Team Has Two Options

- #1. Travel straight up the # 3 entry to X-Cut C,
- #2. Return to the #2 entry and travel up to X-Cut C.





TEAM

TEAM STOP MAP

### **TEAM STOP #7**

If the team travels up the # 3 entry to X-Cut C, Inby the team will find an explosive atmosphere that extends to a barricade, the captain's D&I and a GT are required at this location. At the barricade the team will get a response (Help Get Me Out Of Here) to the left the team will find a brattice cloth on the outby rib, a GT is required in this area.

(The will not be able to get the patient behind the barricade until they get the patient behind the barricade in the #1 entry first.)

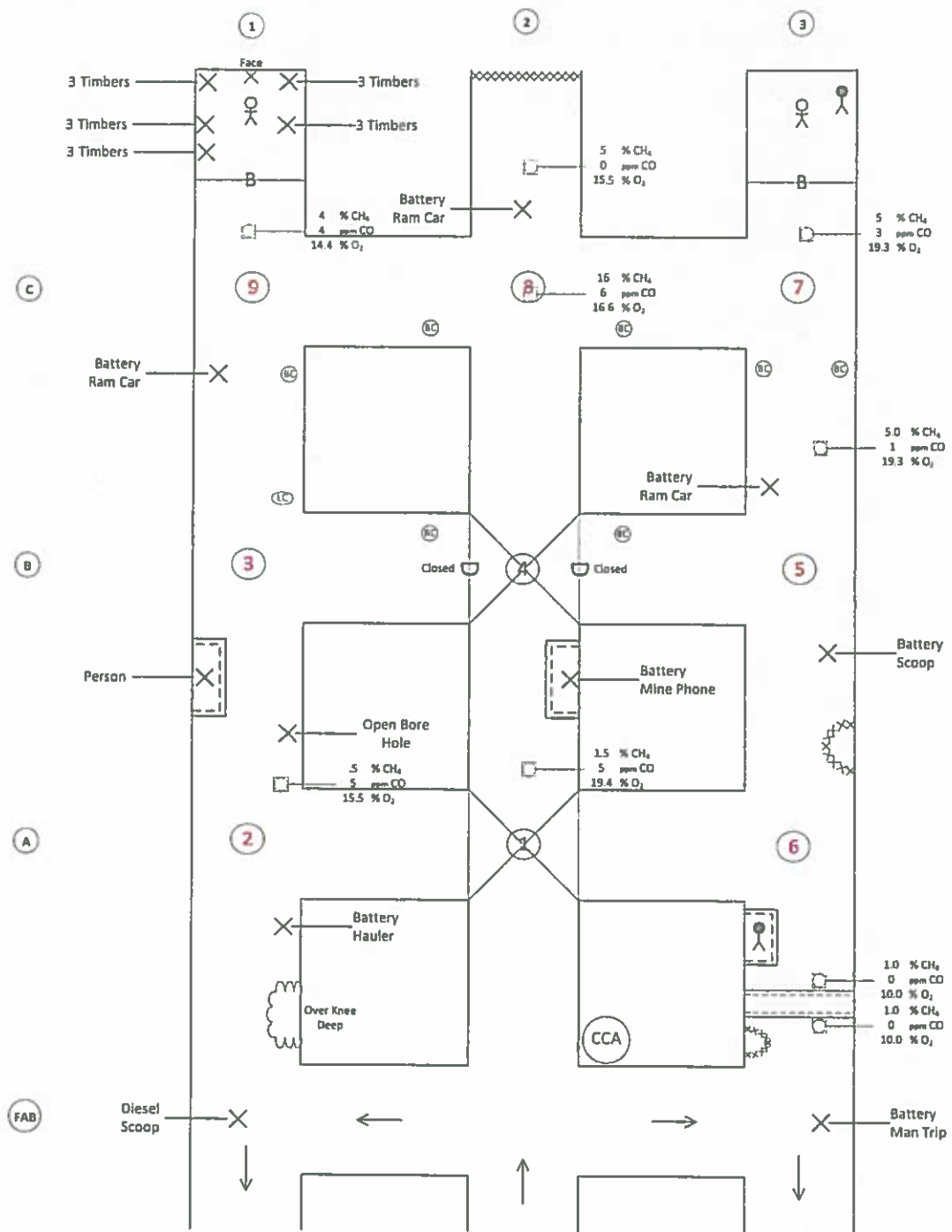
### **TEAM STOP #8**

The team will travel into the intersection of the #2 entry where they will find an irrespirable atmosphere, inby the team will find a battery ram car, in by the battery scoop the team will find an explosive and irrespirable atmosphere that extends to a caved area across the entry, an R&R, the captain's D&I and a GT is required at this location. To the left toward the #1 entry the team will find a brattice cloth on the outby rib, a GT is required in this area. A GT is required in the area outby.

### **TEAM STOP #9**

The team will advance into the #1 entry where outby they will find a battery ram car and a brattice cloth (if they haven't already picked it up) a GT is required in this area. Inby the team will find a irrespirable atmosphere extending to a barricade, the captain's D&I, and a GT is required at this location. The team will get a response from behind the barricade (Help Get Me Out Of Here) When the team completes this team stop they will be able vent the barricade in the #1 entry.

See First Vent



# TEAM

TEAM STOP MAP

### **TEAM STOP #10**

#### **THE BARRICADE IN THE FACE OF #1 ENTRY**

Behind the barricade the team will find a total of fifteen timbers, (In Stacks Of Three) The team should also find a live conscious live person, and a face area where the captain's D&I, R&R and a GT are required at this location

### **TEAM STOP #11**

Once the team has removed conscious live person to the FAB, they should return to the person the elongated unsafe roof in the #1 entry between X-Cut A & B and timber into them, when the captain touches the person they will become a body.

### **TEAM STOP #12**

#### **THE BARRICADE IN THE FACE OF #3 ENTRY**

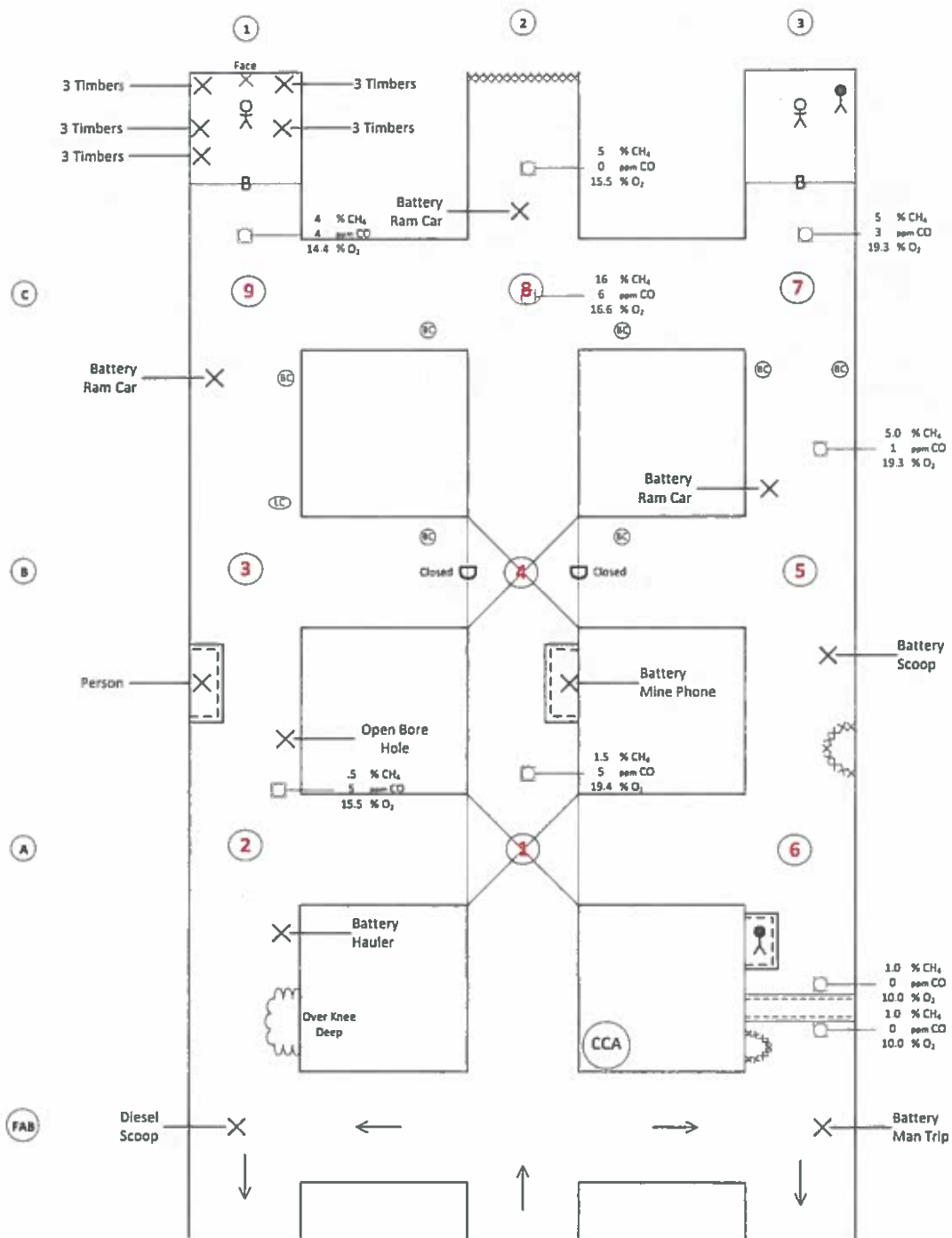
See Second Vent

The team will need to remove the explosive mixture in front of the barricade before entering the barricade.

When the team enters the barricade, they will find a conscious live person in the center of the entry, a body on the right, the face area where a R&R, the captain's D&I and a GT are required.

### **TEAM STOP#13**

The team should timber into the body in the #3 entry in between the FAB & X-Cut A. (To identify who it is)



# TEAM

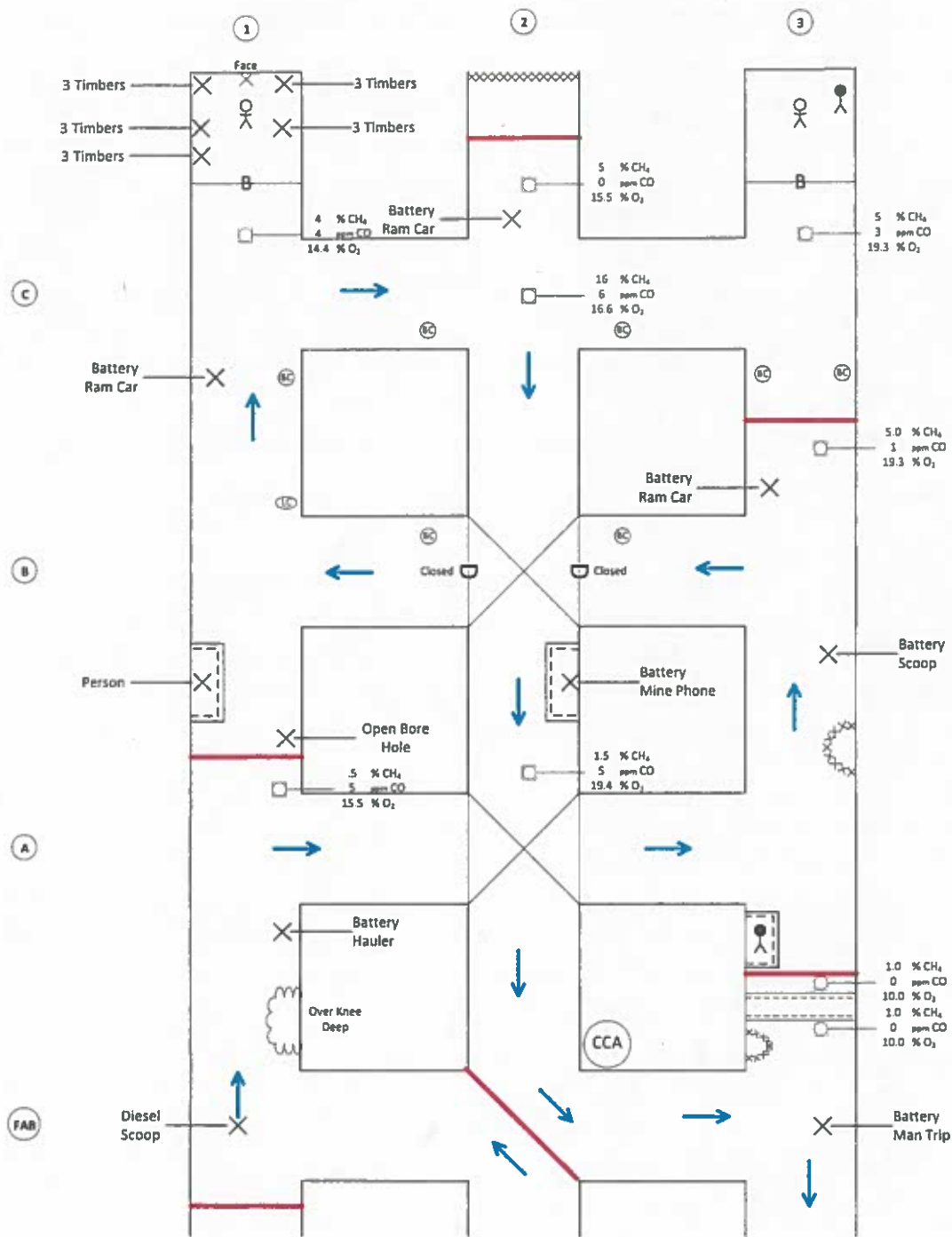
TEAM STOP MAP

## **FIRST VENTILATION**

For the first vent, (Starting In The FAB) The team should build a diagonal to take the ventilation over to the #1 entry, the team should build outby at the FAB in the #1 entry, take the ventilation up the #1 entry to X-Cut A, the team should build in the #1 entry between X-Cut A & B, take the ventilation over the overcast to the #3 entry, in the #3 entry the team will need to build outby between the A X-Cut and the FAB, take the ventilation up the #3 entry to X-Cut C, the team will need to build inby between X-Cut B & C, take the ventilation over the overcast to the #1 entry, (make sure that both overcast doors are closed) take the ventilation up the #1 entry to X-Cut C, wing the barricade, take the ventilation over to the #2 entry, the team will need to build inby in the #2 entry to block off the caved area the face of the #2 entry, take the ventilation down the #2 entry all the way to the FAB over to the #3 entry and out. **THE DIAGONAL IN THE FAB MUST BE BUILT LAST.**

## **SECOND VENTILATION**

For the second vent, (Starting In The FAB) The team should build a diagonal to take the ventilation over to the #2 entry, the team should build outby at the FAB in the #3 entry, timber through the unsafe roof between the FAB & X-Cut A, take the ventilation up the #3 entry to X-Cut A, the team should build inby in the #3 entry between X-Cut A & B, take the ventilation over the overcast to the #1 entry, in the #1 entry the team will need to build outby between the FAB & the A X-Cut, take the ventilation up the #1 entry to X-Cut B, the team will need to build inby between X-Cut b & C in the #1 entry, take the ventilation over the overcast (make sure that both overcast doors are closed) take the ventilation up the #3 entry to X-Cut C, wing the barricade, take the ventilation over to the #2 entry, the team will need to build inby in the #2 to block off the caved area in the face of the #2 entry, take the ventilation down the #2 entry, timber into and move the mine phone in between X-Cut B & A, take the ventilation all the way to the FAB over to the #3 entry and out.



TEAM \_\_\_\_\_

FIRST VENT MAP

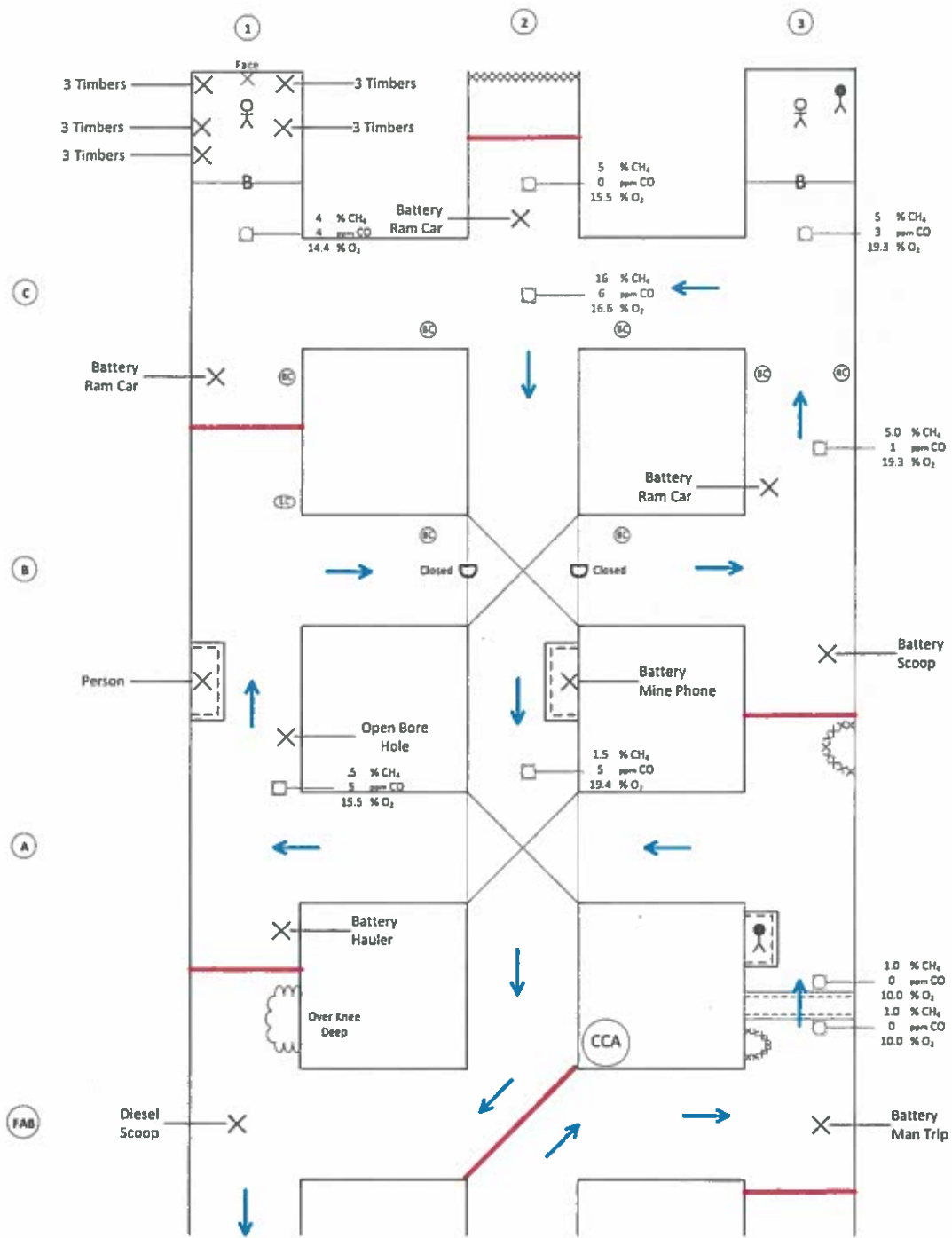
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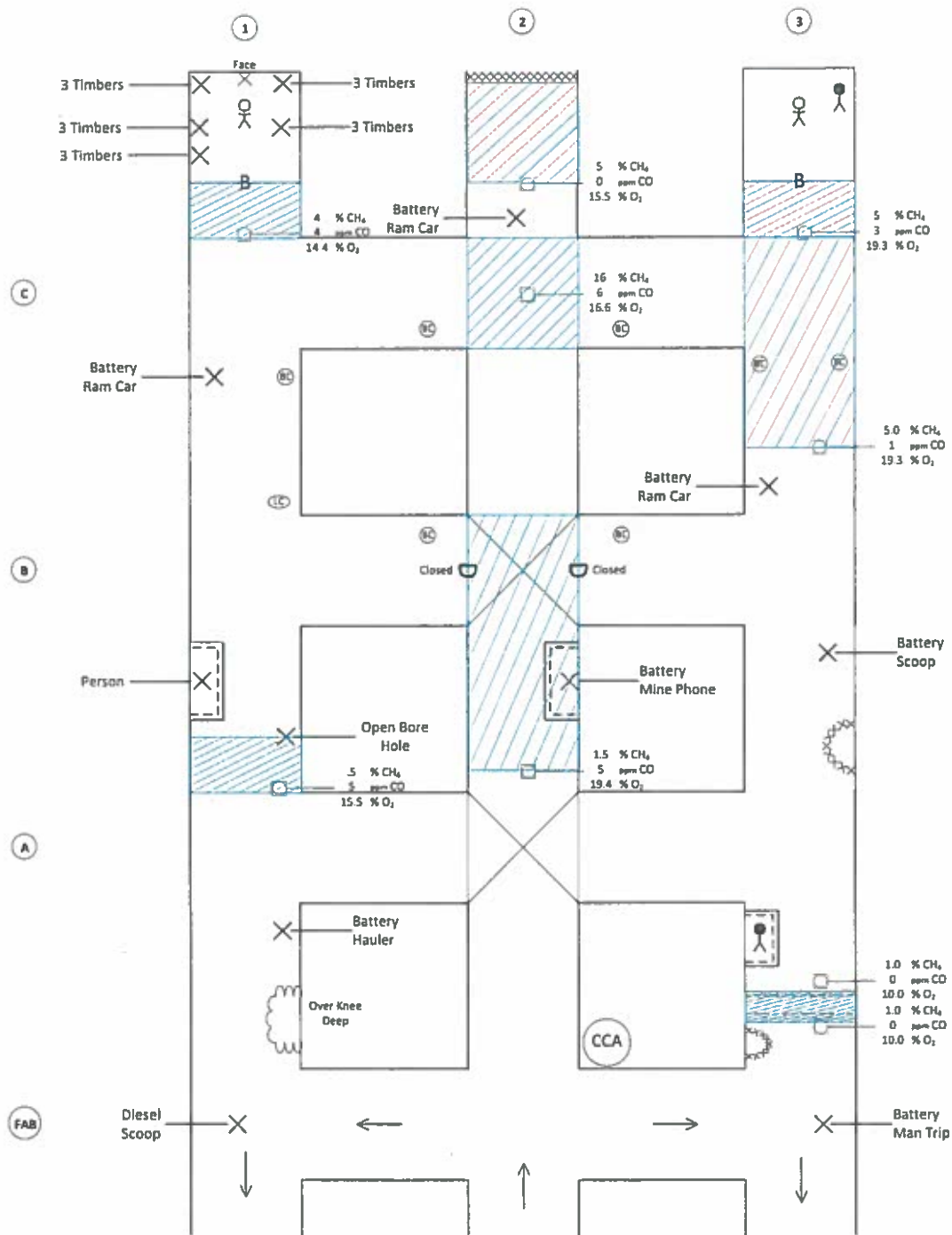
## **SECOND VENTILATION**

For the second vent, (Starting In The FAB) The team should build a diagonal to take the ventilation over to the #2 entry, the team should build outby at the FAB in the #3 entry, timber through the unsafe roof between the FAB & X-Cut A, take the ventilation up the #3 entry to X-Cut A, the team should build inby in the #3 entry between X-Cut A & B, take the ventilation over the overcast to the #1 entry, in the #1 entry the team will need to build outby between the FAB & the A X-Cut, take the ventilation up the #1 entry to X-Cut B, the team will need to build inby between X-Cut b & C in the #1 entry, take the ventilation over the overcast (make sure that both overcast doors are closed) take the ventilation up the #3 entry to X-Cut C, wing the barricade, take the ventilation over to the #2 entry, the team will need to build inby in the #2 to block off the caved area in the face of the #2 entry, take the ventilation down the #2 entry, timber into and move the mine phone in between X-Cut B & A, take the ventilation all the way to the FAB over to the #3 entry and out.





TEAM



TEAM

EXTENT OF GAS MAP

## **2018 WKMI NATIONAL MINE RESCUE CONTEST**

**MAY 23, 2018**

### **KEYS TO THE PROBLEM:**

- 1. On the first vent the team MUST build the diagonal in the FAB last.**
- 2. To enter the barricade in the #1 entry the team should return down the #2 entry and remove the diagonal and use it to air lock in.**
- 3. Any time ventilation inby the FAB is being changed the air should be short circuited at the FAB.**
- 4. If the team timbers into the body in the #3 entry between the FAB & X-cut A, they delay the patient behind the barricade in the #3 entry.**