

2014 Pennsylvania State Mine Rescue Contest

Team Statement

Thank you for responding to this emergency to the Carmike Mine # 3.

This mine had been an active longwall operation from 1983 to 2002 before being sealed.

The mine is in the process of being rehabilitated for active operation. It was inactive for several years before being reopened. As per the opening plan, several bore holes were drilled to ascertain the atmosphere prior to work crews entering the mine. The old mine maps reveals that a total of 203 breaks were made from the surface. Old maps also reveal that an adjacent mine may be within the barrier pillar, so drilling was mandated ahead of any rehabilitation work.

To further the ventilation, a 10 foot wide split ventilation shaft was sunk 5 days ago in the inby area where the rehabilitation work was being done.

One shift foreman, 2 black hats and 2 apprentice miners were doing construction maintenance in this area of the mine. They were using various type of battery operated and compressed air equipment to drill, ventilate, and clean up falls and prepare the mine for production.

At 2:55 am, the responsible person on the surface noticed smoke exiting the mine return in # 1 Entry.

The outside mine foreman then barefaced to the area just outby where you are now. High reading of CO and smoke stopped his progress. He could not contact anyone underground, so he immediately had someone travel on the surface to the airshaft, but no lights or verbal contact could be made down the shaft. The foreman chose not to use the battery mine phone at the top of the shaft to contact the bottom due to methane readings on the gas detector. He then activated the Emergency Notification List .

The equipment used to sink the shaft was moved out 3 days ago and will not be available for some time.

The mine rescue teams arrived at 4:30 am this morning. After evaluated the gases at the fan, the State, Federal and Company officials mining gave permission for teams to explore to this point where the fresh air base has been established.

You are currently located at the fresh air base at spad # 103.

Normally, this mine runs on an exhausting ventilation system. The intake is in #3 entry on the right, with the return in # 1 on the left. At the moment, the # 2 entry outby the FAB is being vented to the return due to a roof fall just outby # 1 entry at the FAB..

The fan is currently off. It can be turned on, reversed or turned off at your request, but it cannot be stalled. The fan must be stopped before going to exhaust or blowing. It must be noted that severe storms in the area is affecting the power coming to the mine.

The coal seam is walking height and the roof is currently being supported by resin based roof bolts, timber sets and cribbing. The coal seam does dip in certain areas of the mine. The mine has 400 feet of cover with the abandoned Devinshire mine 100 feet above you. The Devinshire has ben dewatered to appropriate levels.

Extreme water conditions have been encountered in this mine and the mine maps can not be counted on to be up to date.

Two mine rescue teams will serve as back up mine rescue teams while you are working. Neither team will be able to assist you when working the problem.

We have a competent judge to give and receive signals (person will be pointed out)

Written instructions and the following mine maps will be provide when you are ready to work:

1. Two blank maps; one for the map man and one for the briefing officer.

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Problem

(Written Instructions)

Explore all areas of the mine that can be done safely.

Bring all survivors to the fresh air base.

Teams can only carry 3 (three) sets of brattice cloth at any time.

Framed ventilation controls cannot be dismantled and must remain in place.

Permission to stop, exhaust or have the fan set to blowing must be submitted in writing to the superintendent.

The fan must be stopped before going to exhaust or blowing.

The fan cannot be stalled.

The briefing officer station can be sealed airtight.

Mine maps are not up to date.

The team will have 80 (eighty) minutes to complete the problem

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Superintendent Instructions

- Assist the field crew in checking the field for mistakes and placard placement prior to the team starting the problem.
- As soon as the team arrives at the FAB and inform the team they have a maximum of 4 minutes. If team is not ready after 4 minutes, , the superintendent will start clock when 4 minutes have expired.
- When the team starts the clock, give them the problem(written instructions), and the maps.
- After the team receives the problem and maps and begins working the problem, report to the briefing officer station and be ready to respond to any requests of the team.
- At the briefing officer request in writing, the superintendent will display card on outside of BP shed:
 - **Green** – Fan is on and Exhausting
 - **Red** - Fan is off
 - **Yellow** - Fan is on and Blowing
- Help the judges with the collection of the maps and determining the final ventilation on the field.
- Assist the filling out of scorecards upon conclusion of the problem.
- If radios are used, you must monitor the radio to ensure that the team has communications at all times and the team has not received any other communication interference.

Request for Ventilation Change

Request # 1: Time_____Initial_____

- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 2: Time_____Initial_____

- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 3: Time_____Initial_____

- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 4: Time_____Initial_____

- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 5: Time_____Initial_____

- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 6: Time_____Initial_____

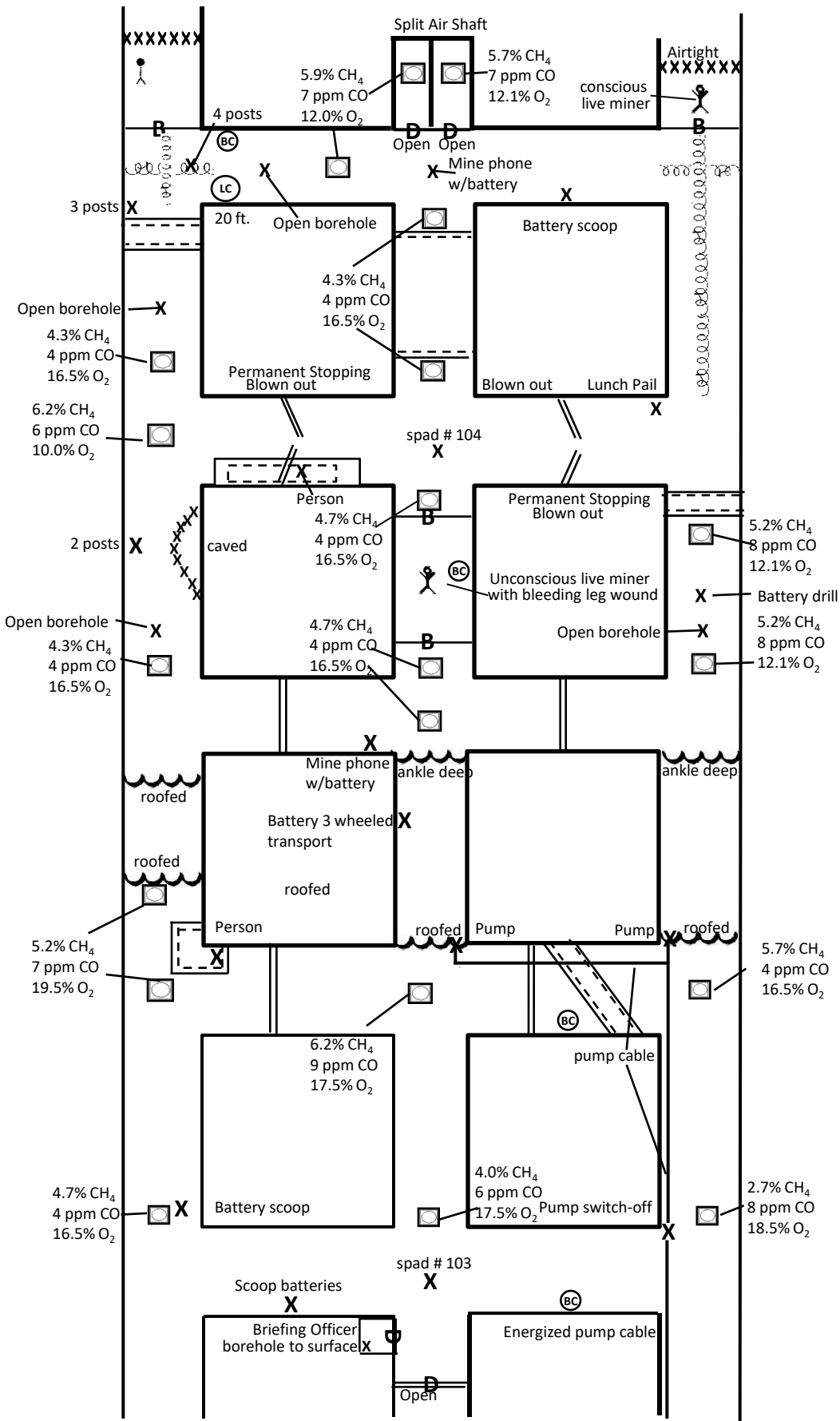
- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 7: Time_____Initial_____

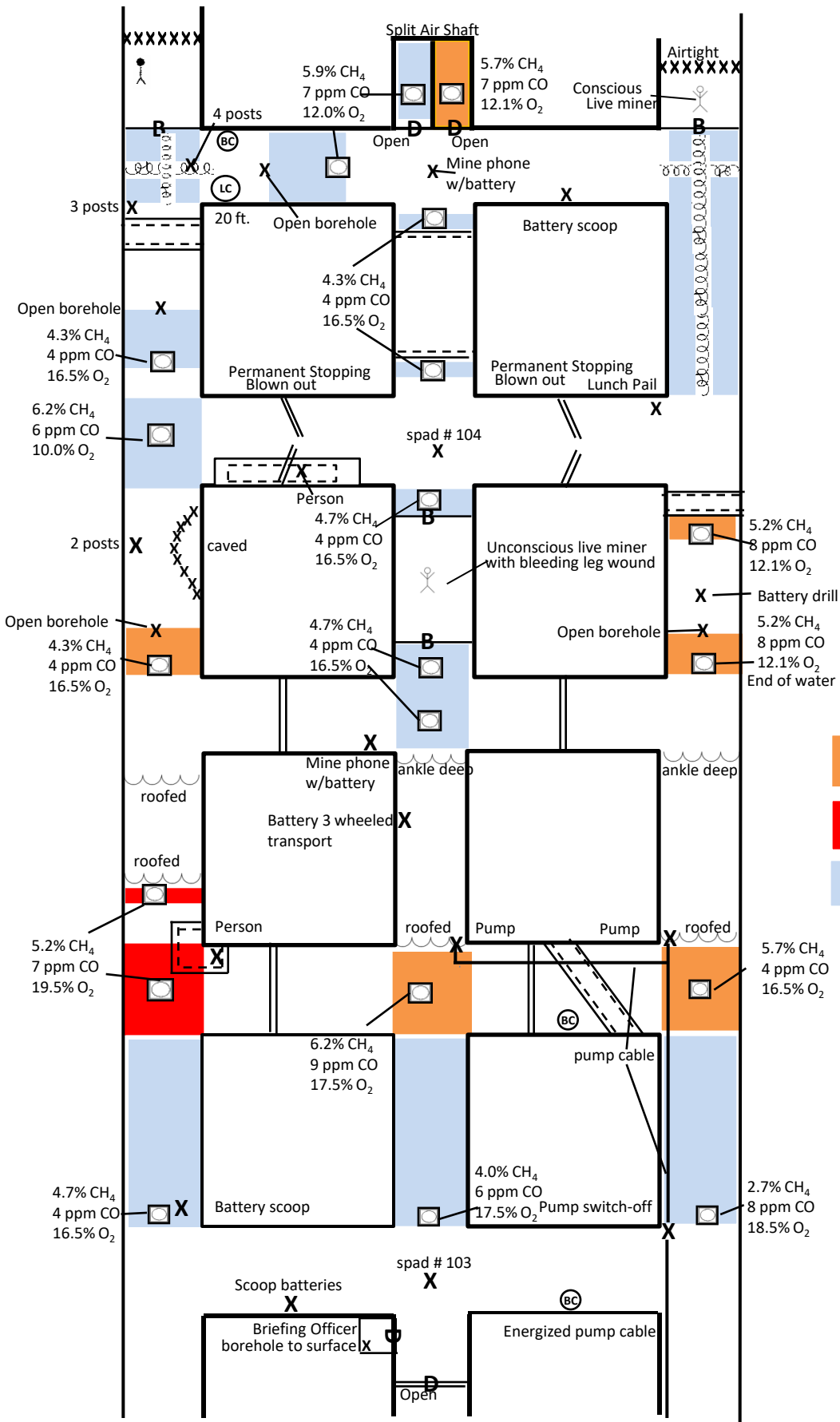
- Fan stop
- Fan Exhaust
- Fan Blowing

Request # 8: Time_____Initial_____

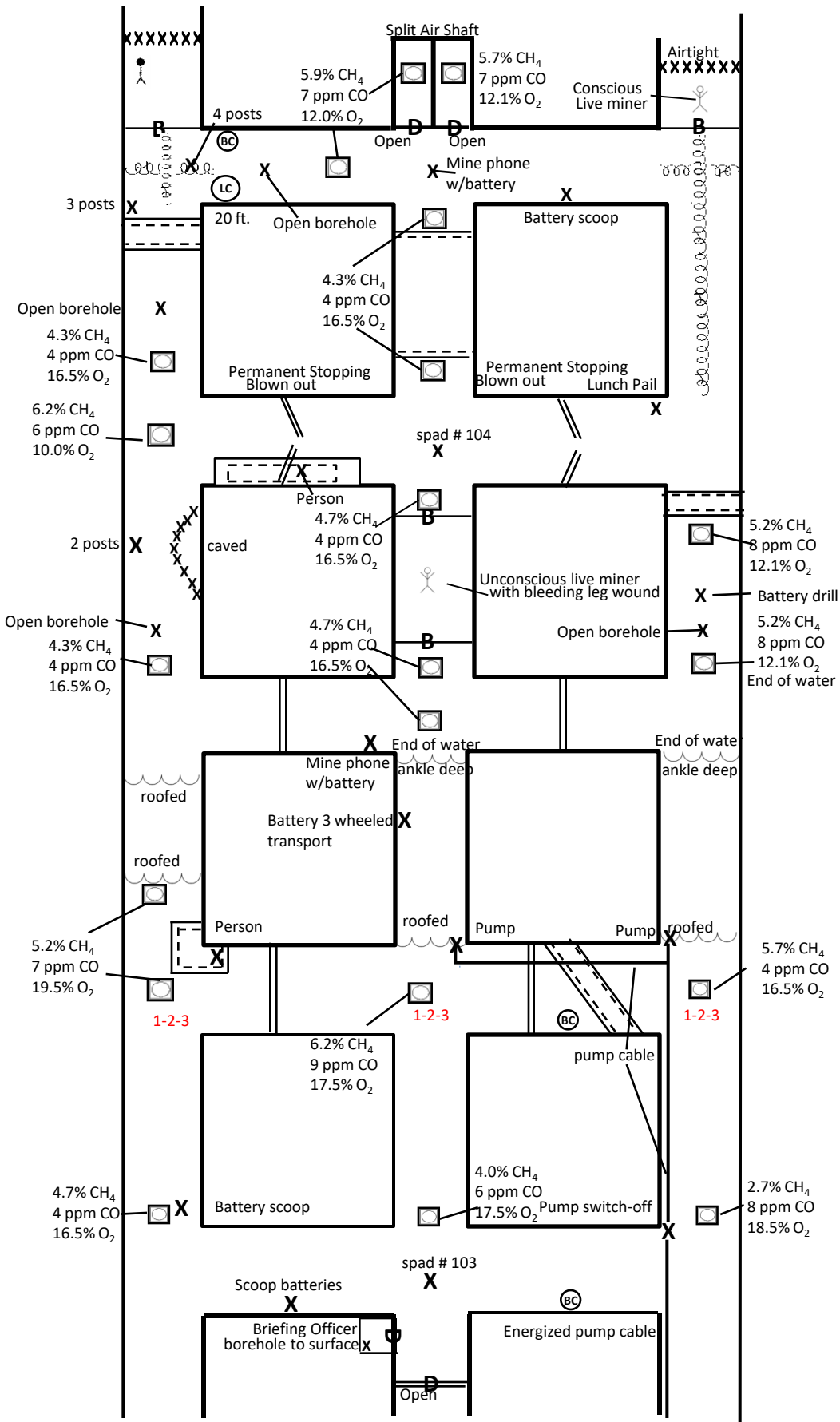
- Fan stop
- Fan Exhaust
- Fan Blowing



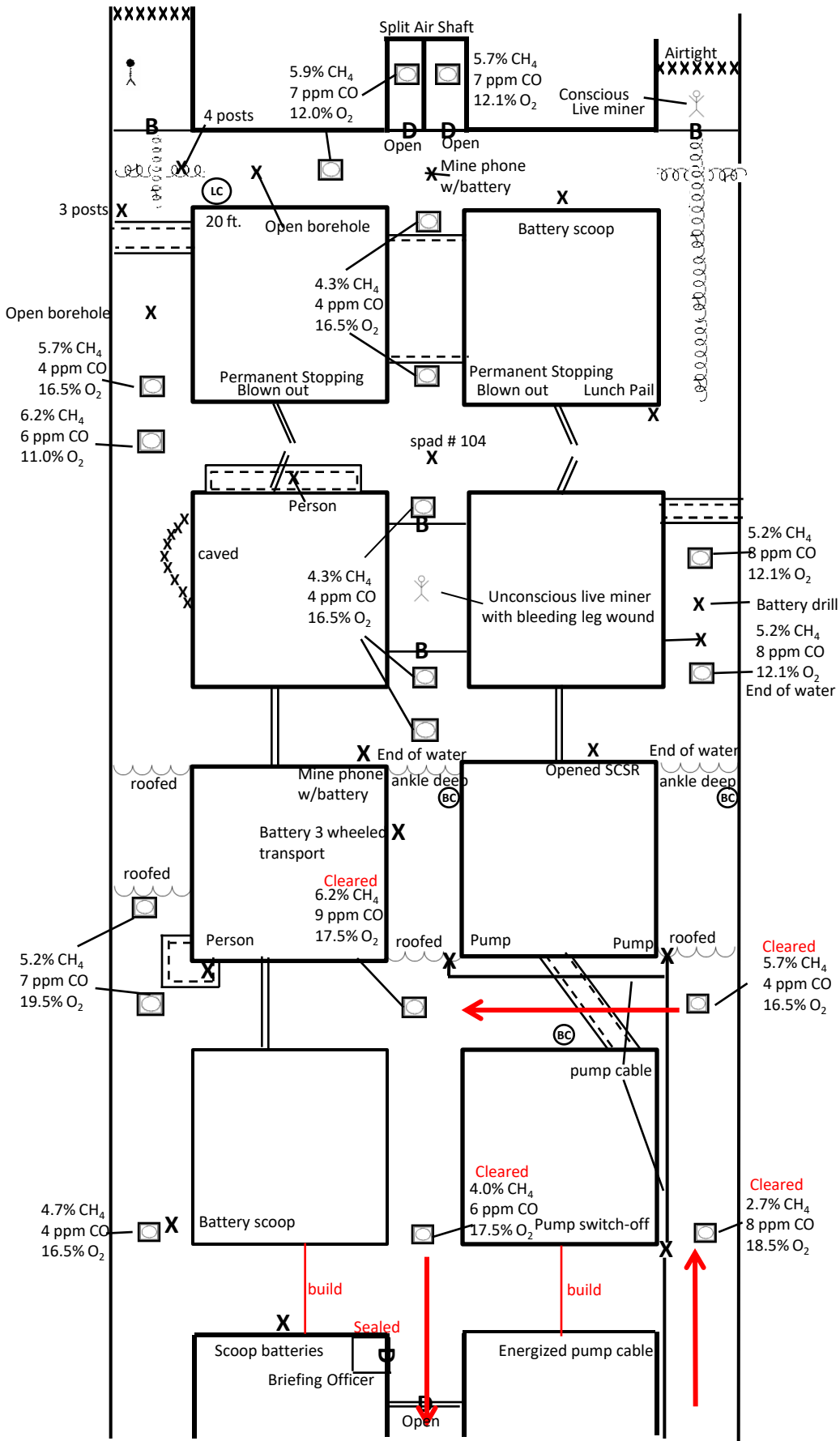
Field setup



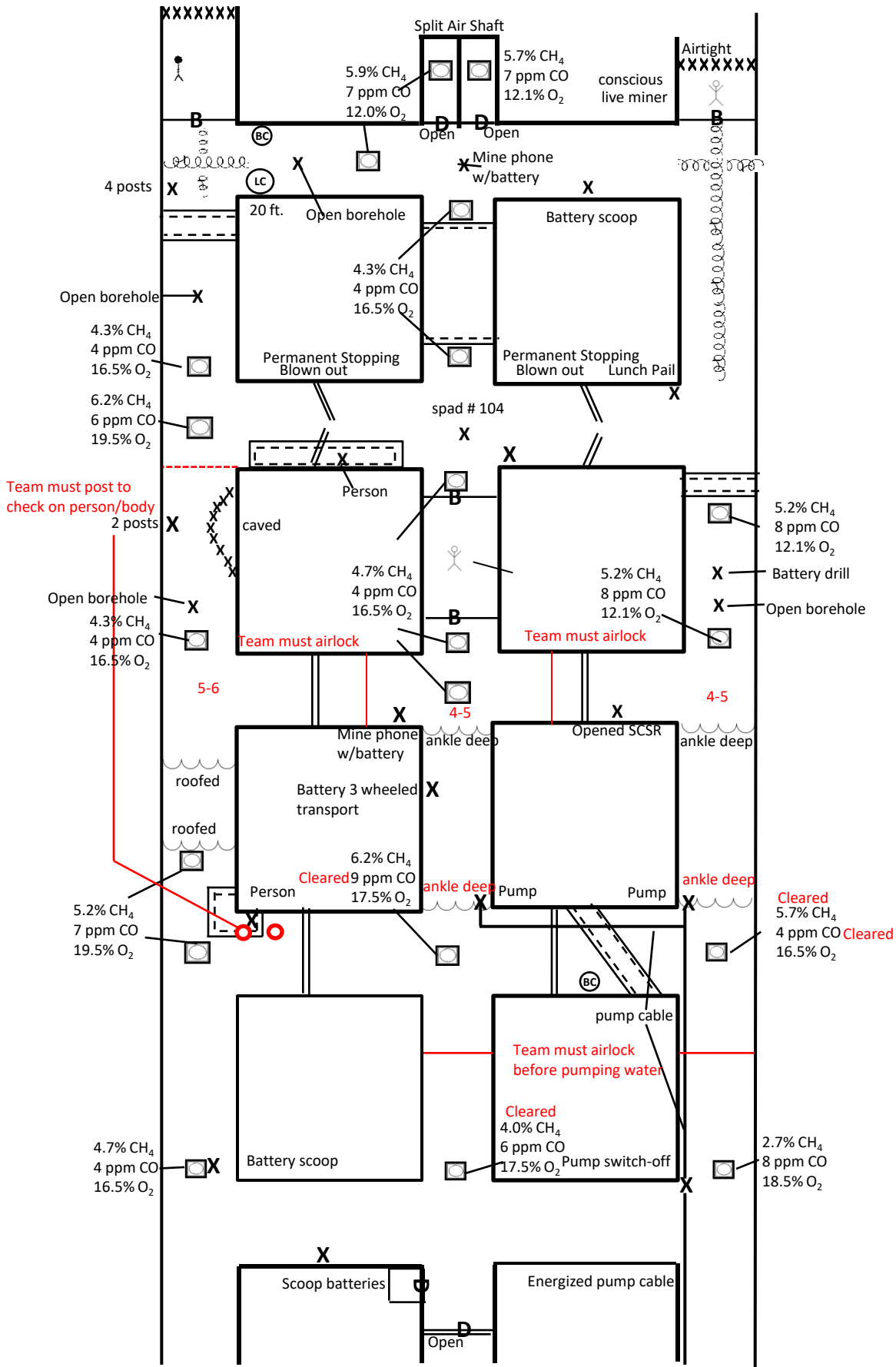
Extent of gas



Team stops # 1-2-3



1st Ventilation #1(Exhaust)



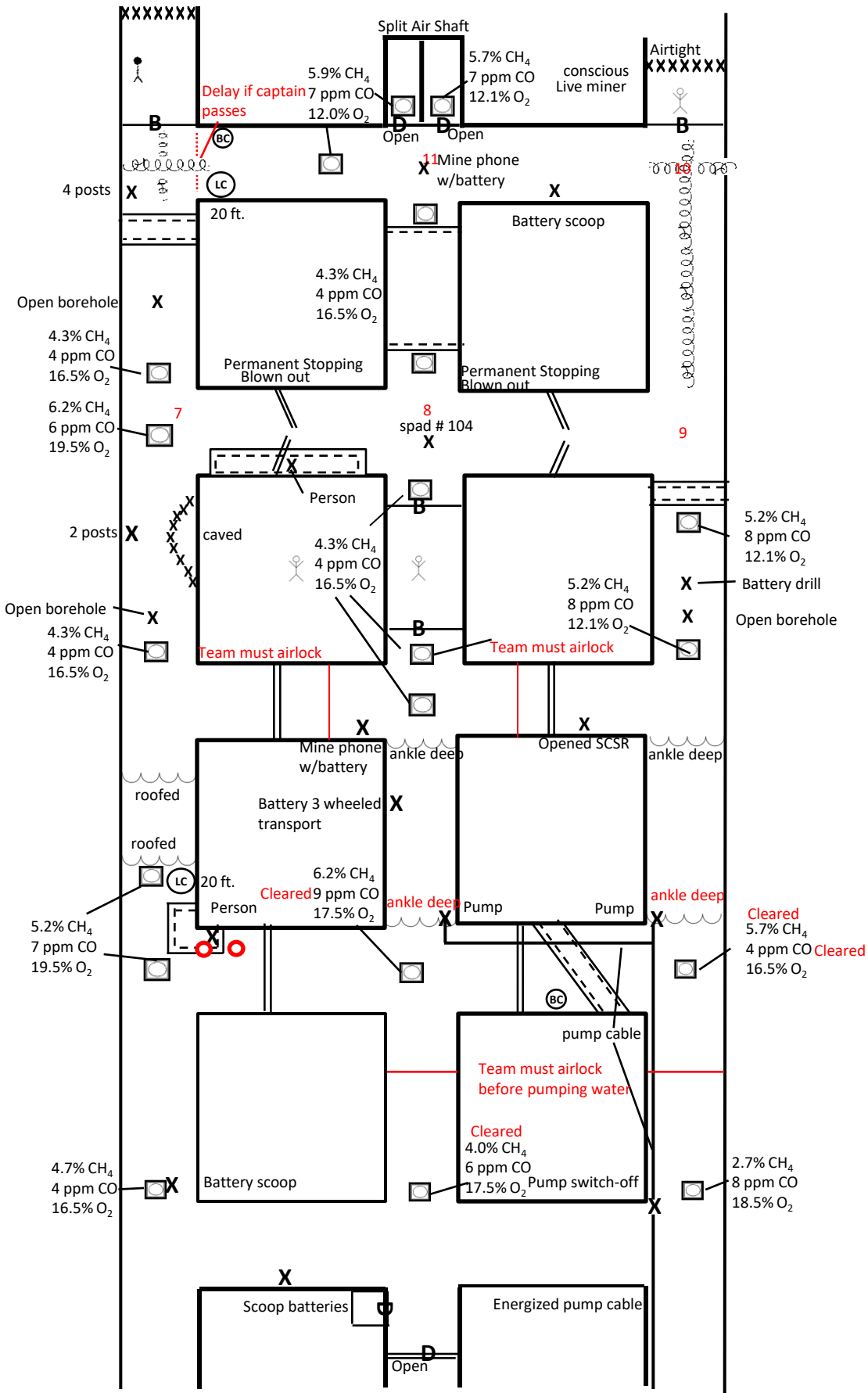
Team stops # 4-5-6

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Barricade # 1

Patient Statement

No reply



Team stops # 7-11

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Barricade # 2

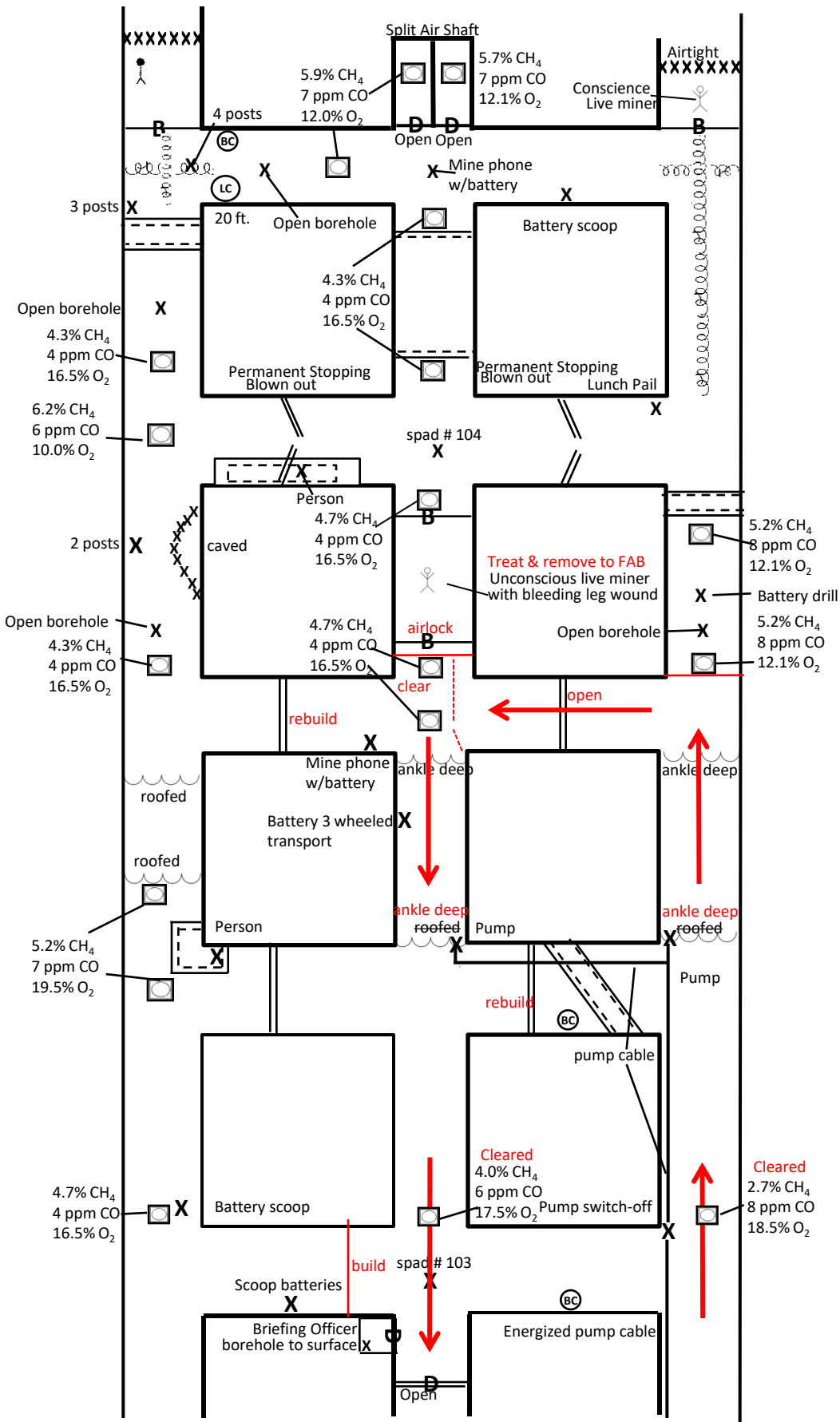
Patient Statement

Help

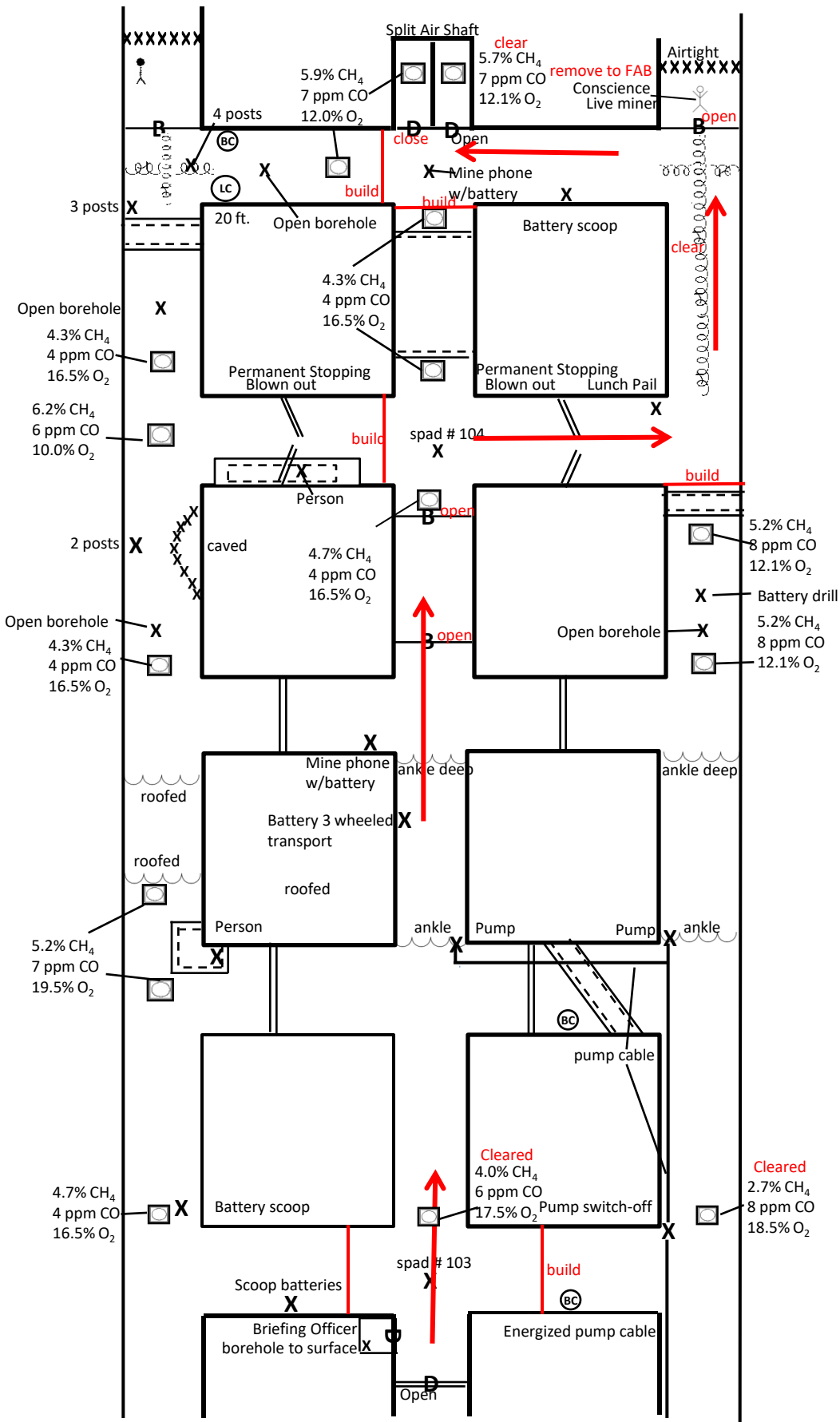
I am OK

Get me out

It is air tight behind



Ventilation # 2(Exhausting)



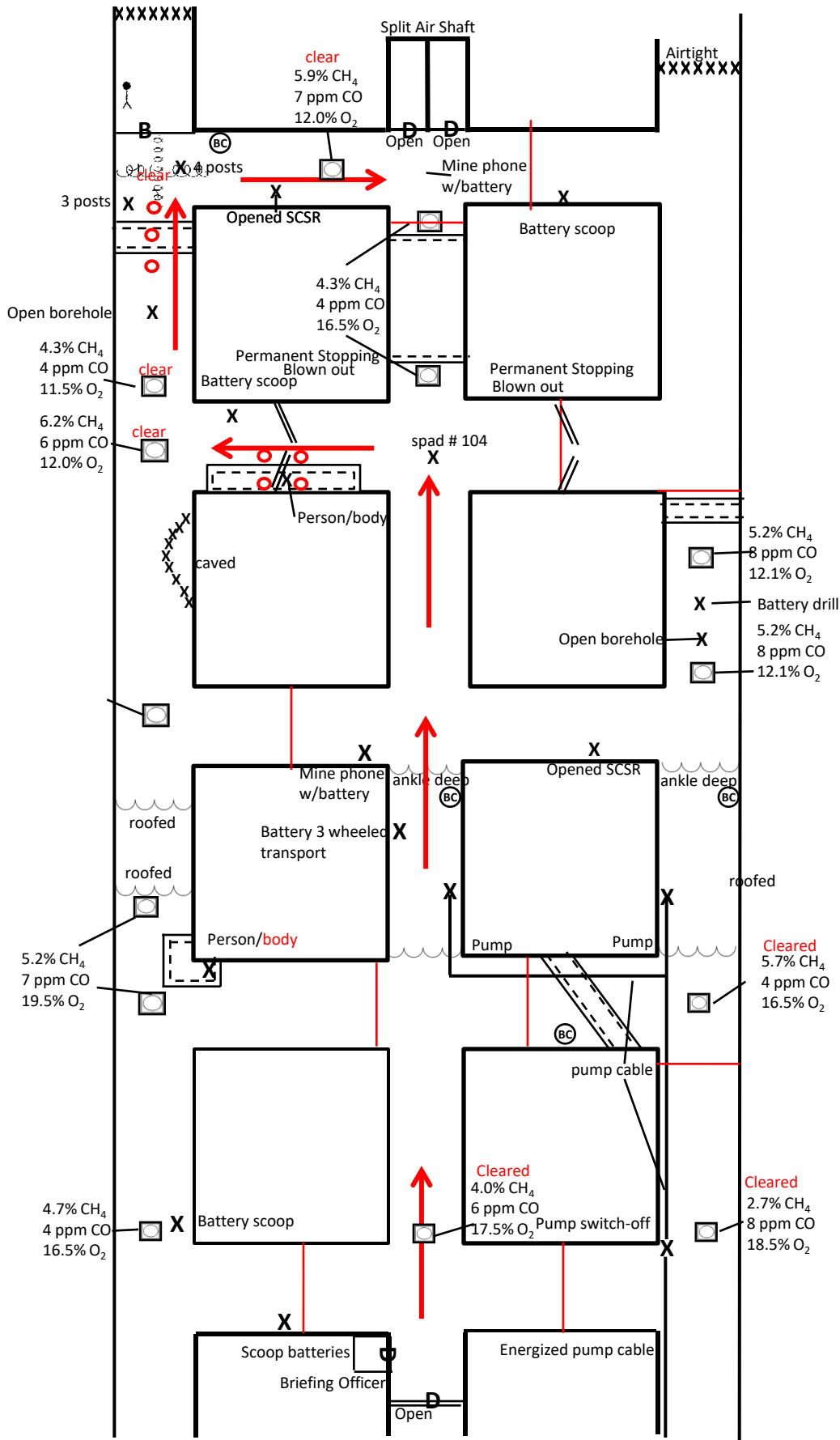
Ventilation # 3(Blowing)

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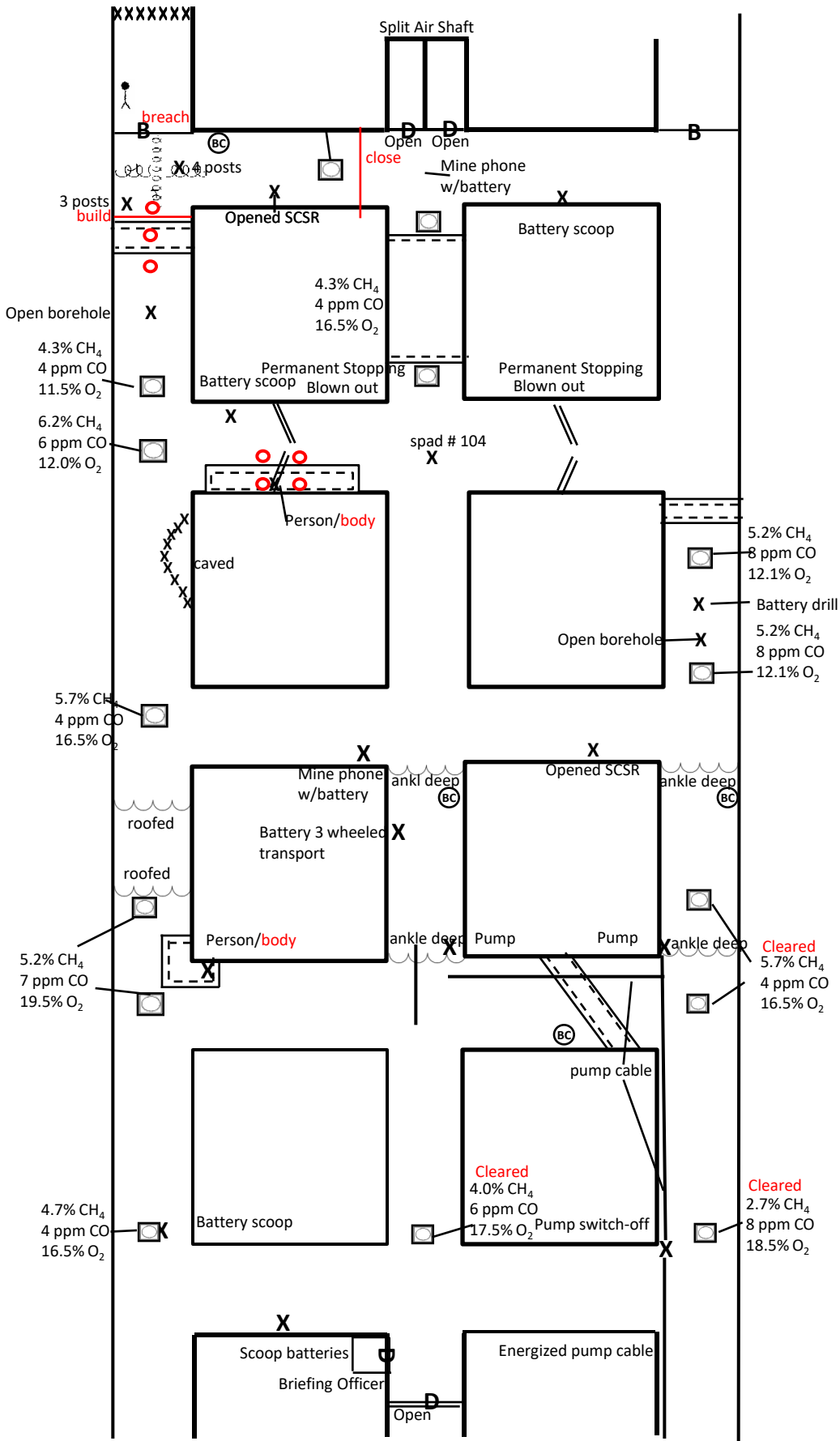
Barricade #3

Patient Statement

No reply

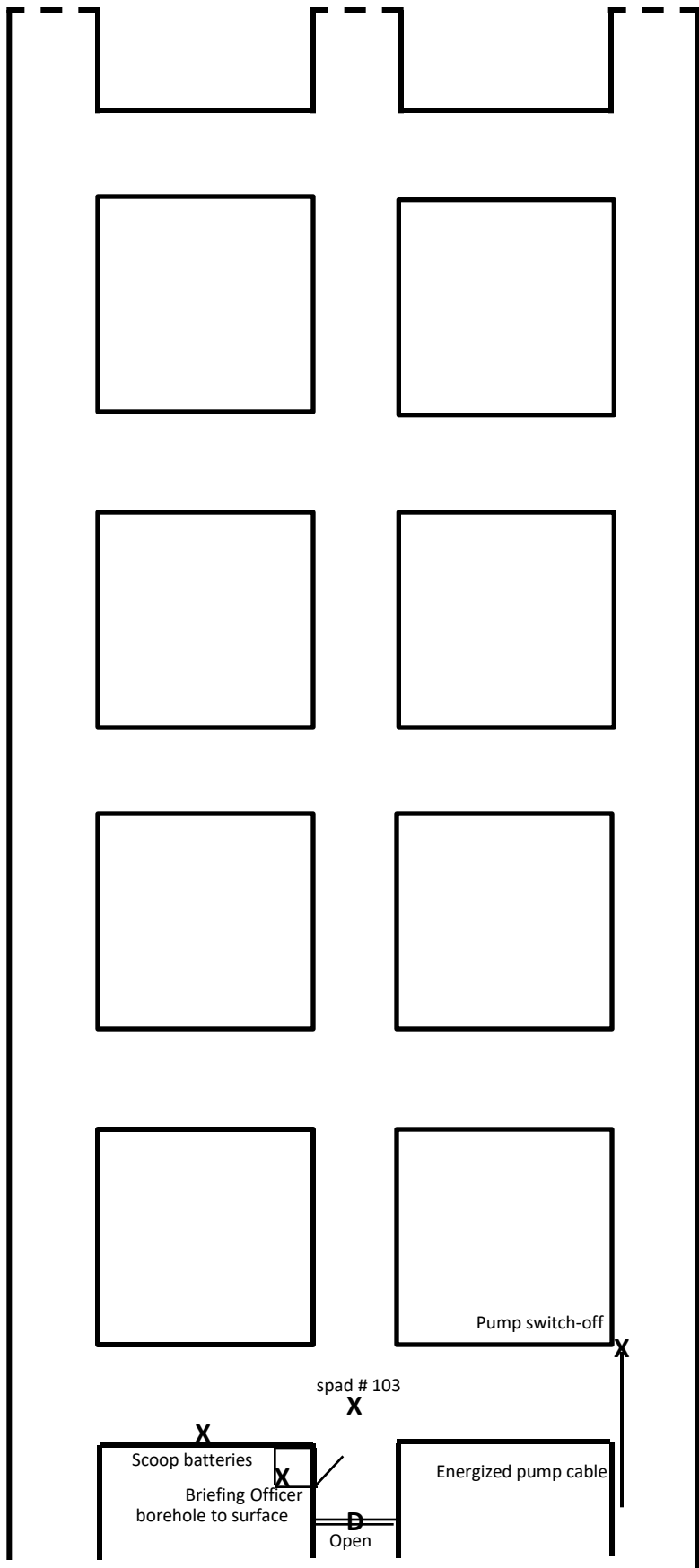


Final ventilation(Blowing)

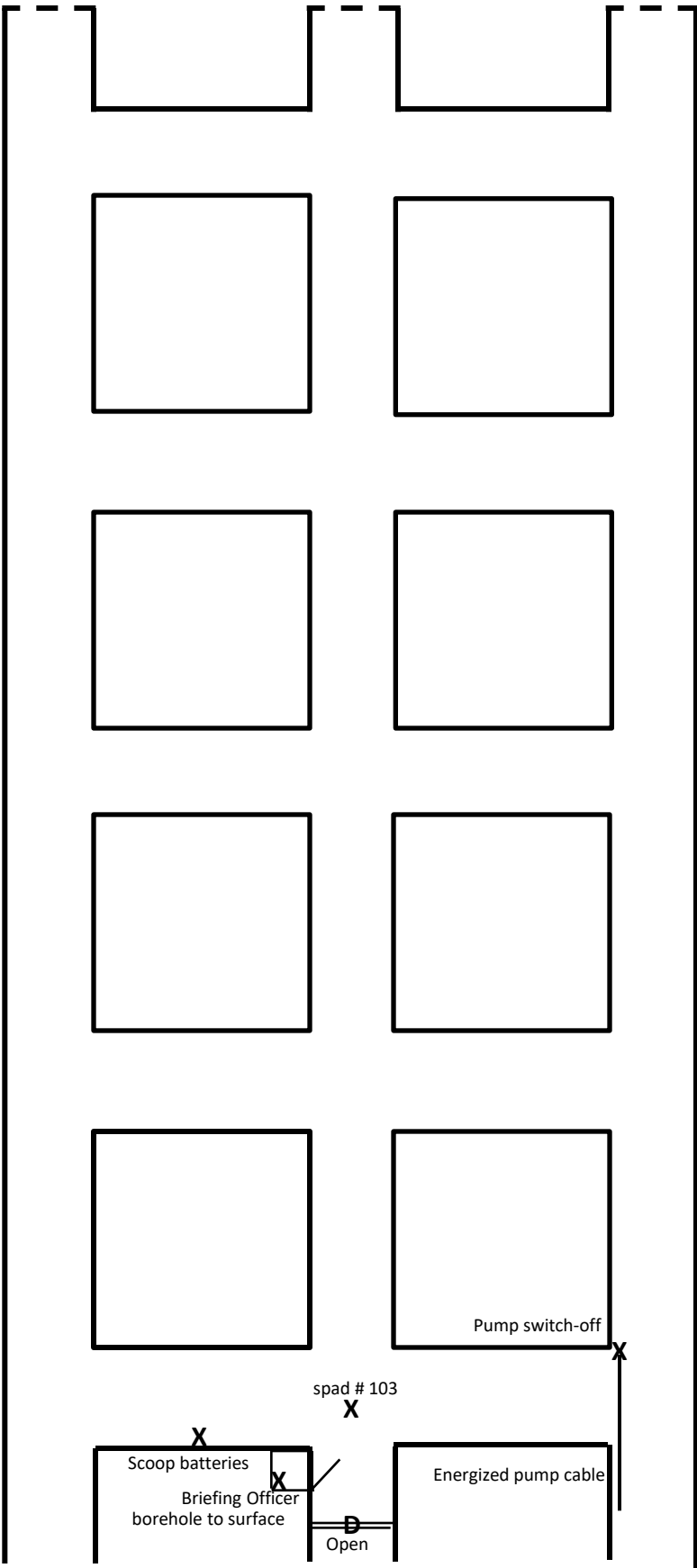


Final solve/fan off-air shorted @ FAB

Team:



Judging Map



Initials

Final Ventilation Map