

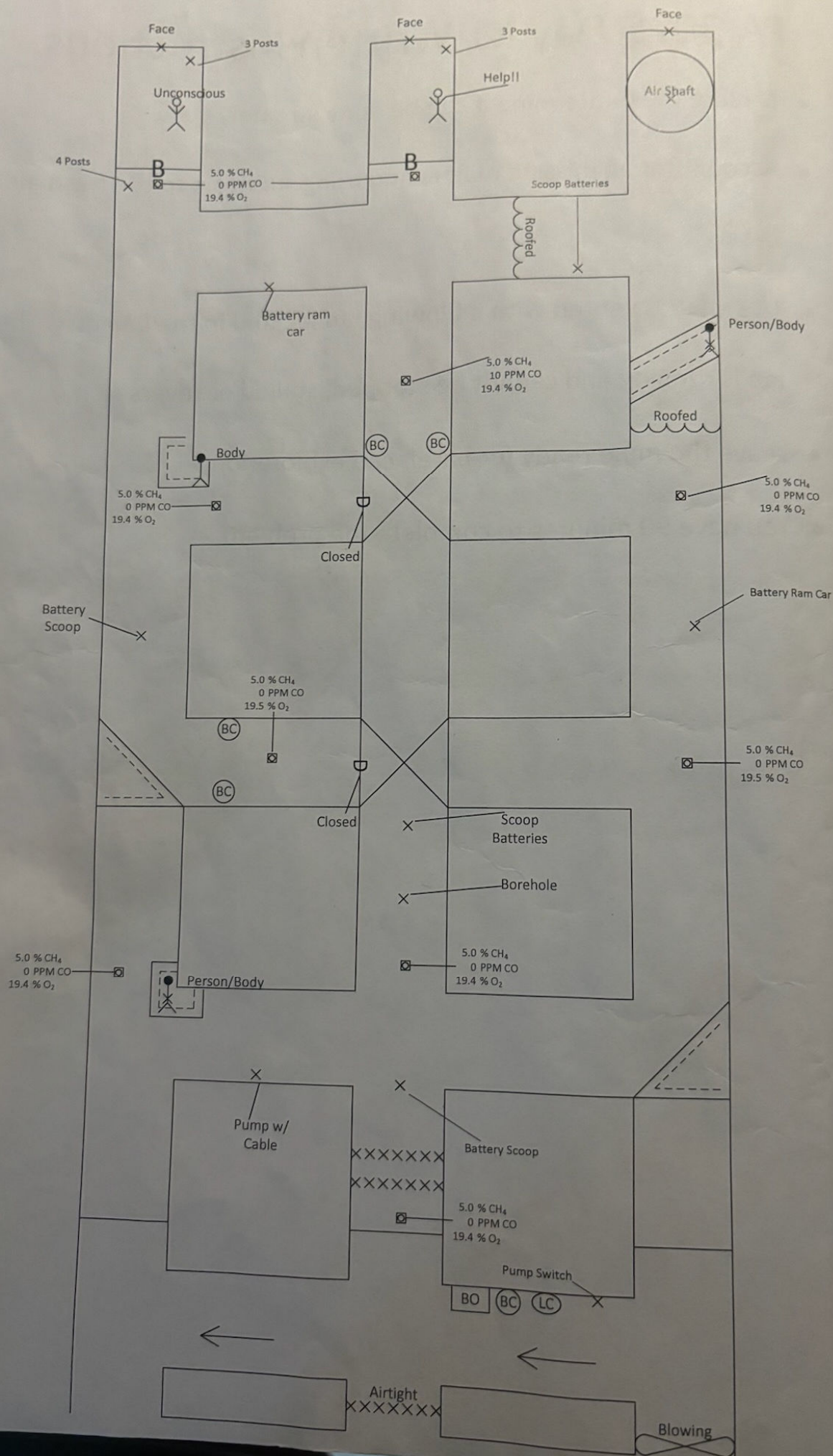
PA 2025 Day #1 Statement

Thank you for answering our call for help. Last night a five-man crew entered the mine to get the section ready for production. The communications and tracking system quit working, and we have not been able to talk to the crew. The mine examiner could not complete his pre-shift exam due to high levels of methane gas, low levels of oxygen and poor roof conditions. Please help us find our missing miners. There is a back-up mine rescue team here on the surface.

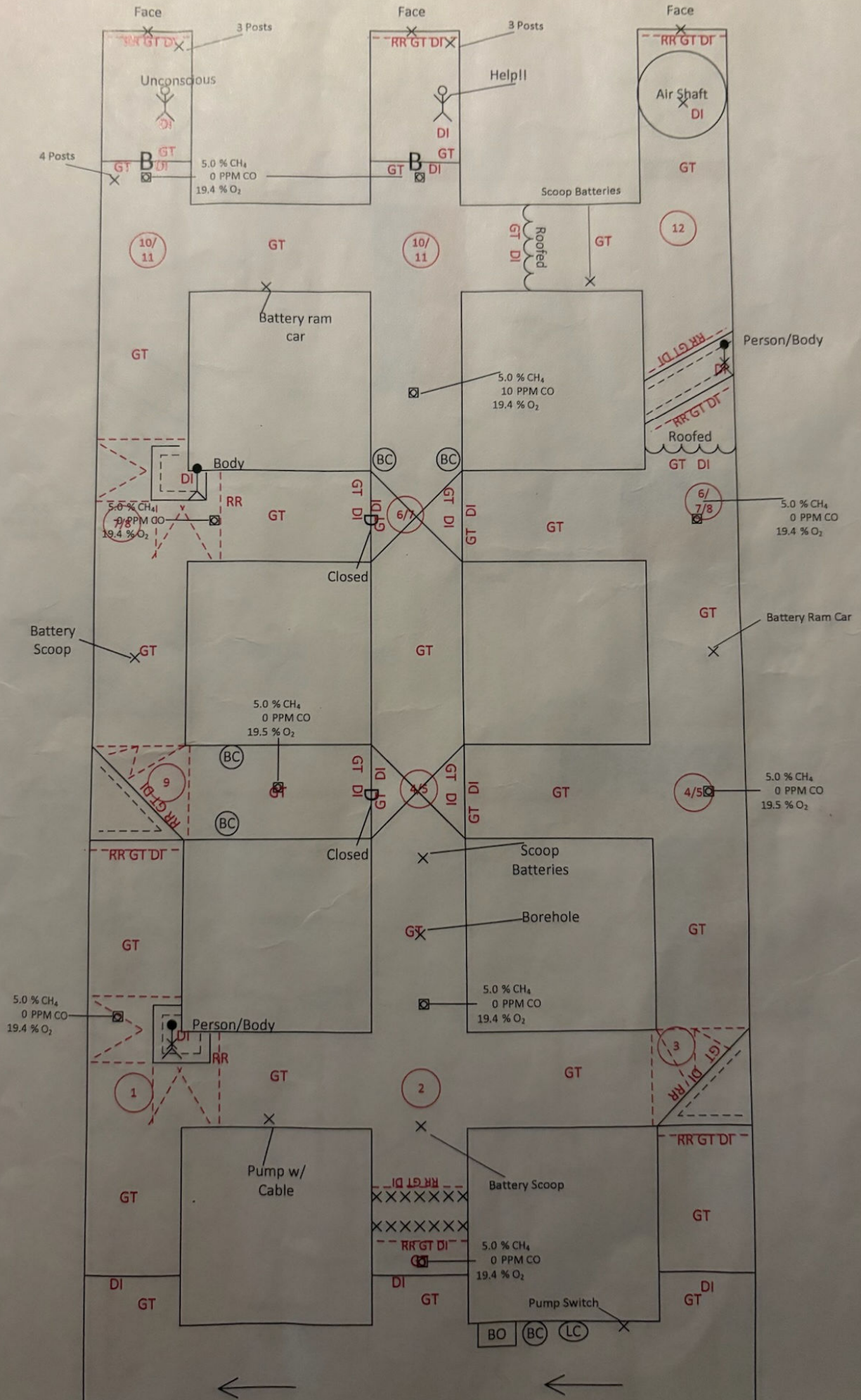
PA 2025 Day #1 Written Instructions

- Explore the entire mine if can be done so safely.
- Account for all missing miners and bring survivors to the fresh air base.
- The mine is vented with a blowing fan located in the #3 entry. The fan is running and cannot be stopped, stalled or reversed.
- Leave the mine ready for barefaced exploration.
- You have 90 minutes to complete the problem.

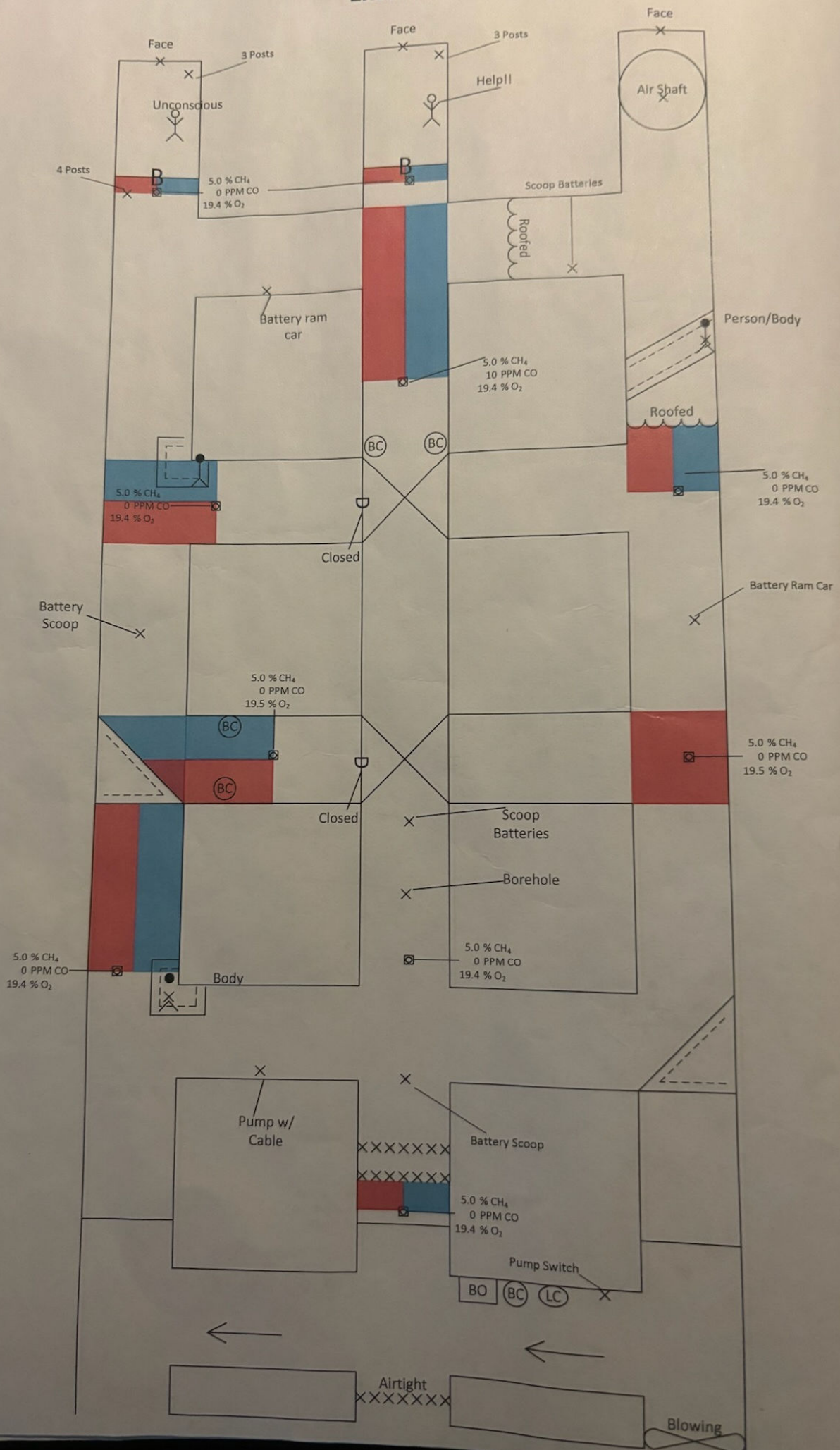
DAY 1



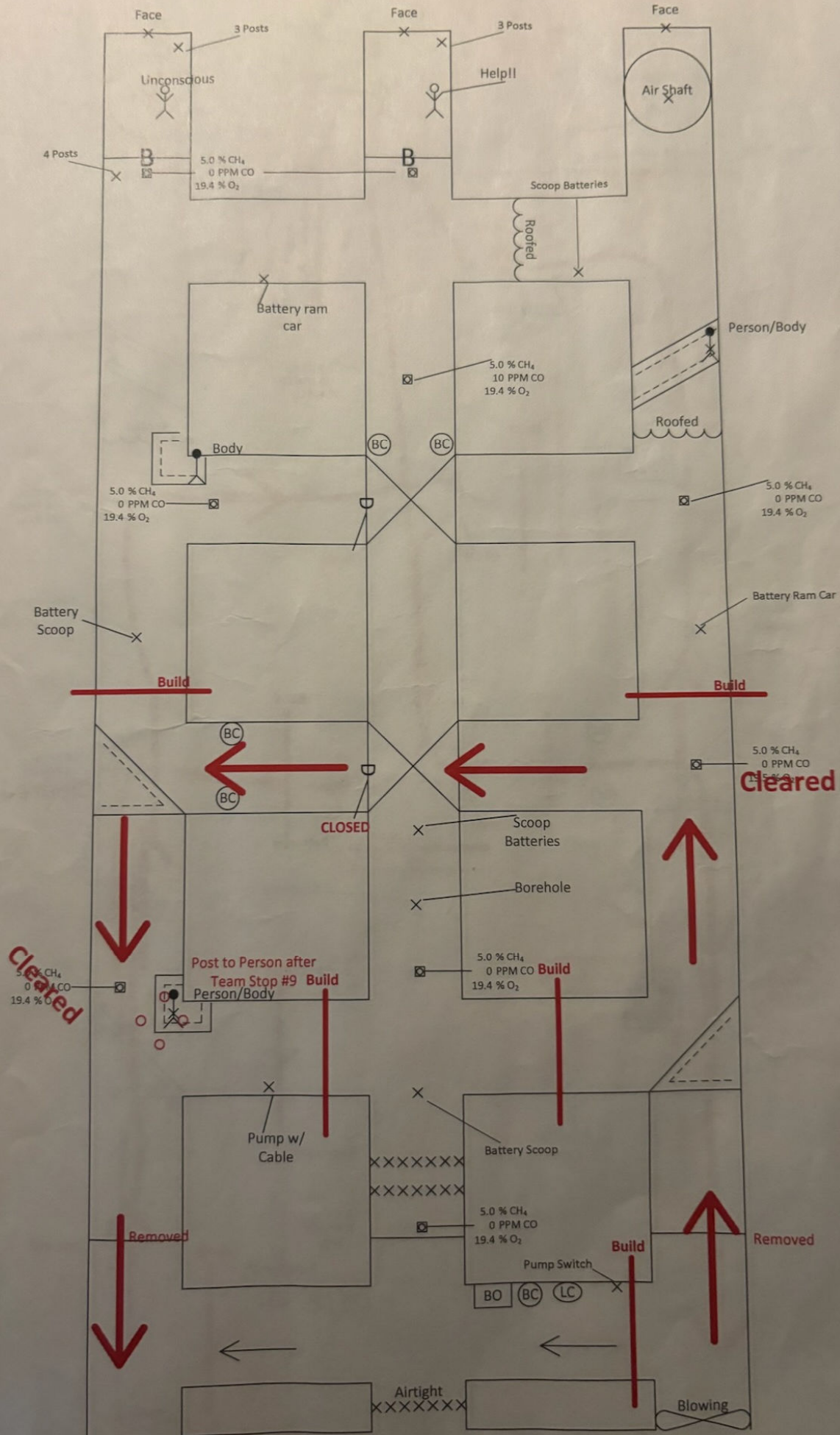
TEAM Stop/GT/RR/DI



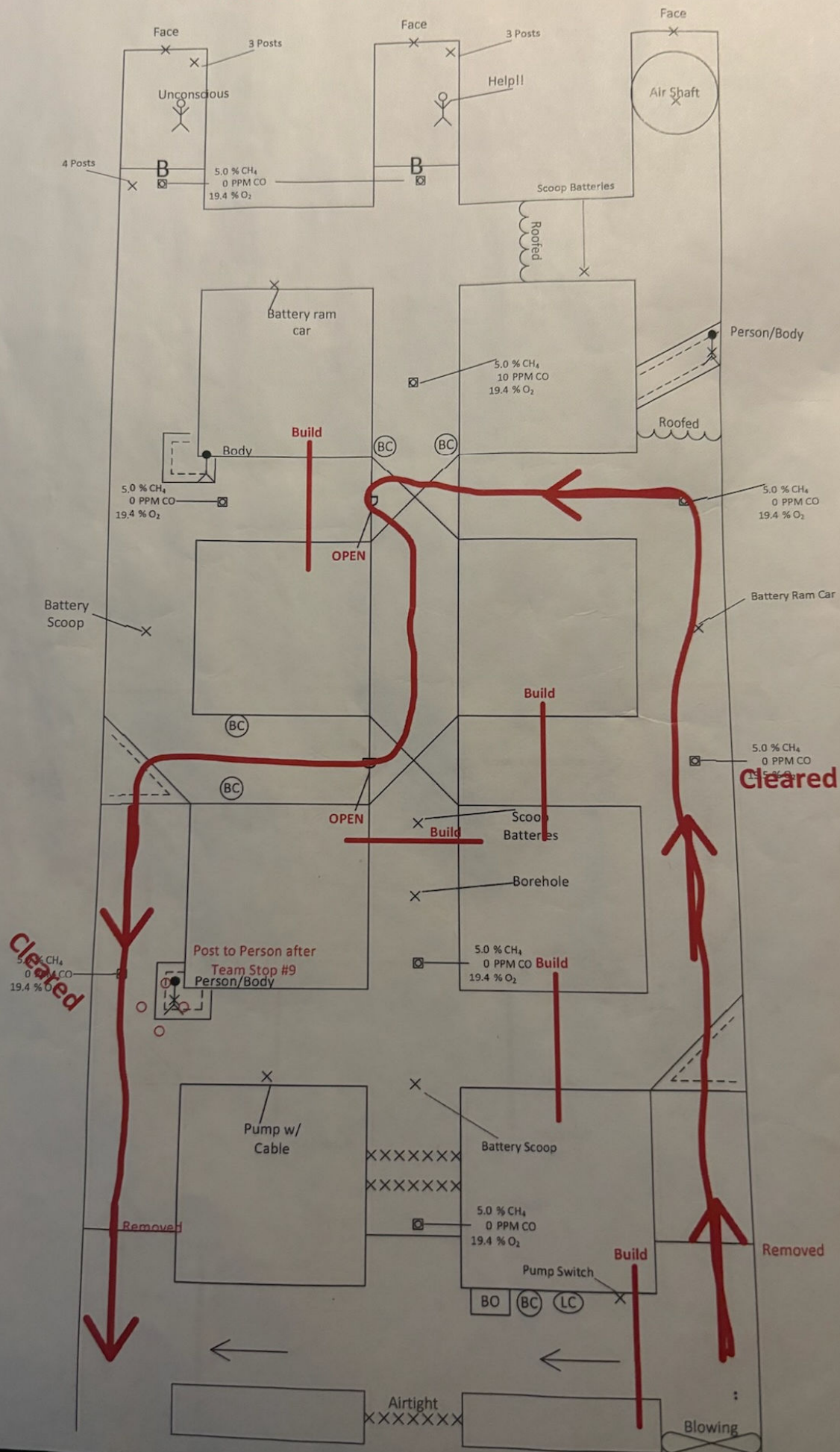
Extent of Gas



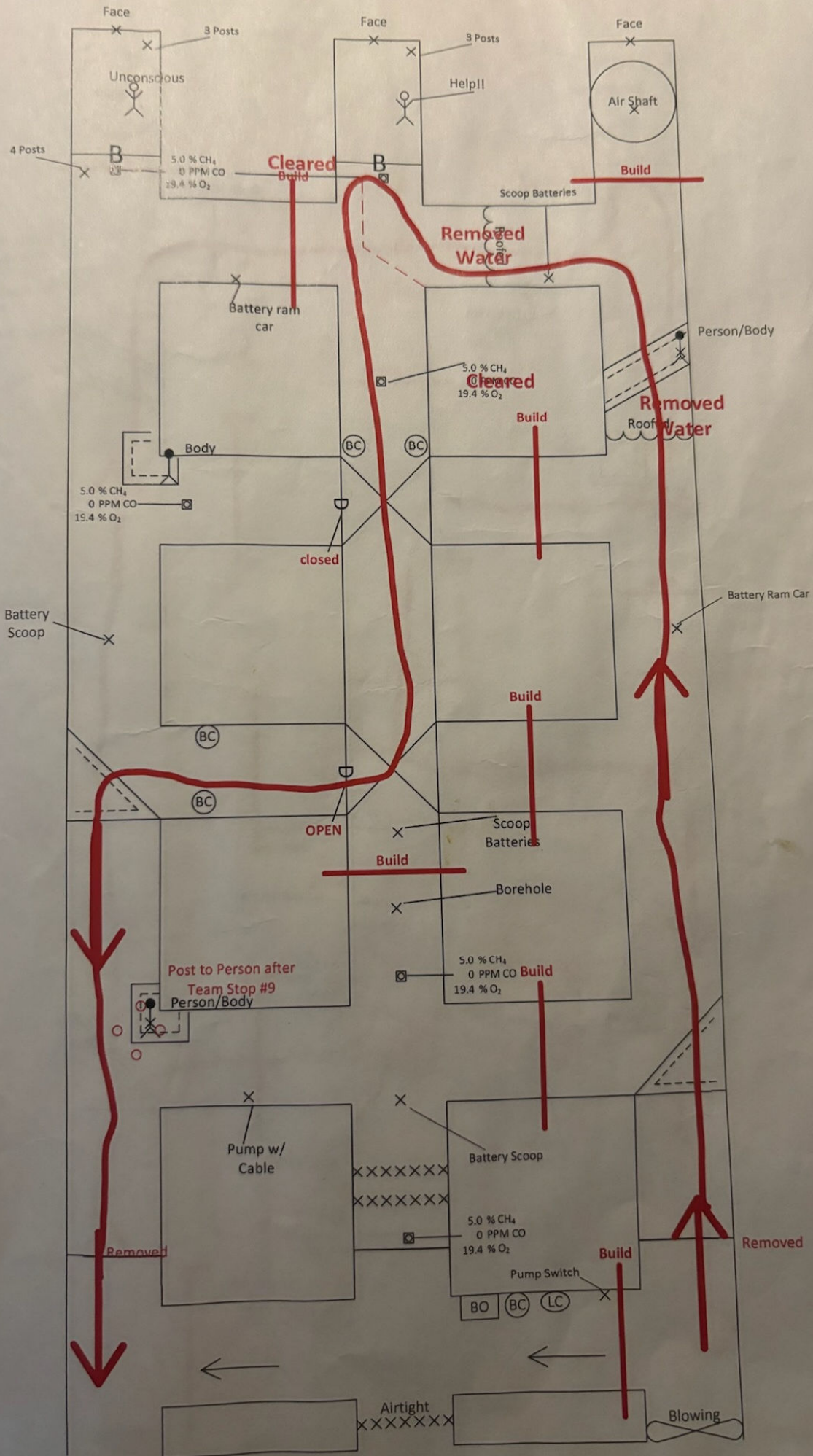
DAY 1 - Vent 1 to Pump



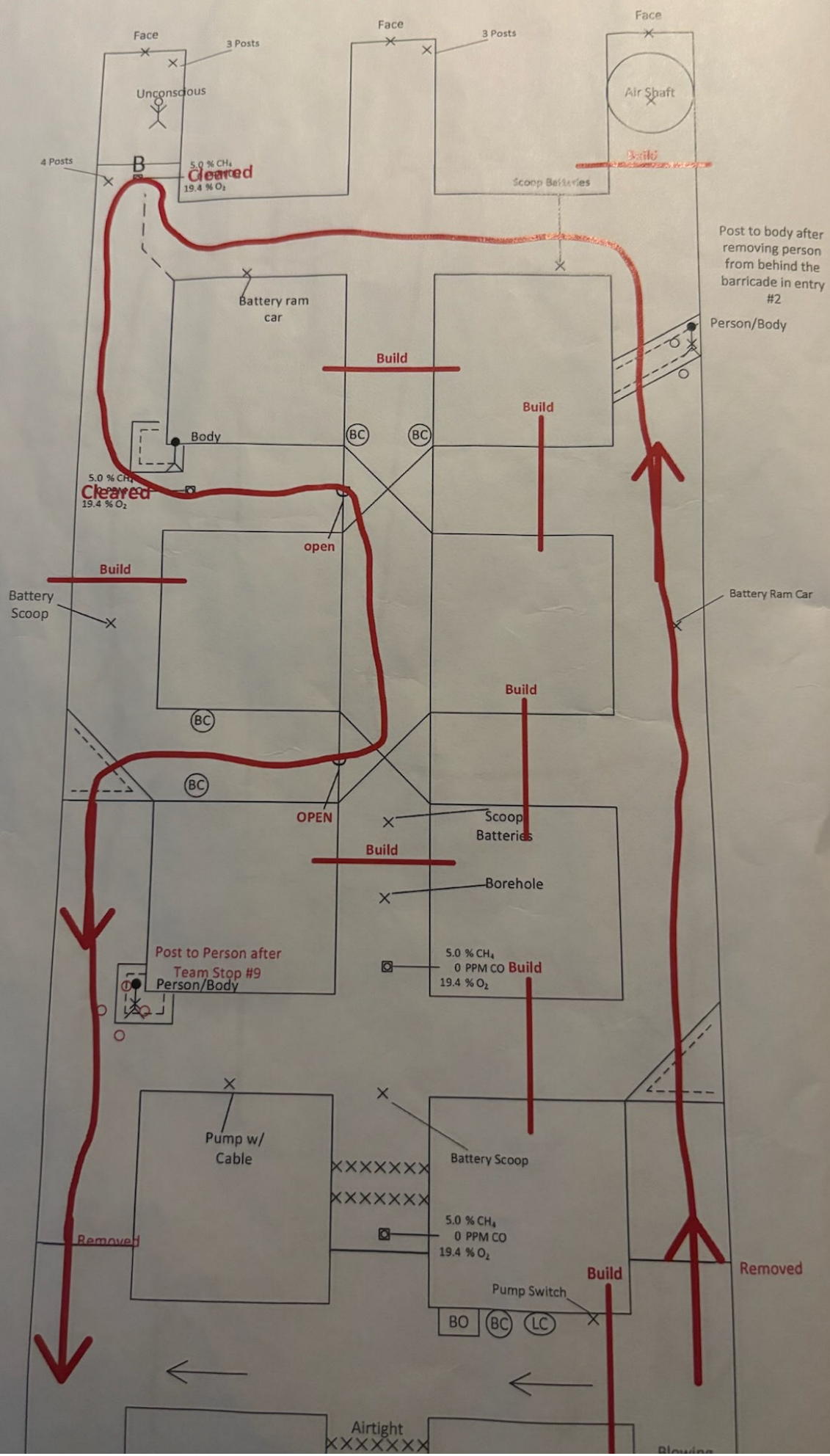
DAY 1 – Vent 1.5 to Pump Water



DAY 1 - Vent 2



DAY 1 – Vent 3



The diagram is a hand-drawn floor plan of a mine tunnel, showing various pieces of equipment, personnel locations, and specific actions taken during an investigation. The plan includes several rooms and corridors, with red lines and text indicating key findings and actions.

Equipment and Features:

- Top Section:** Three rooms at the top, each with a "Face" and "3 Posts". The rightmost room contains an "Air Shaft". Below the middle room is a "Scoop Batteries" area.
- Middle Section:** A "Battery ram car" is located on the left. A "Body" is marked in a small room. Two "BC" (Breathing Circuit) markers are shown. A door is labeled "open".
- Bottom Section:** A "Battery Scoop" is located on the left. A "Pump w/ Cable" is shown. A "Borehole" is marked. A "Scoop Batteries" area is also present. A "Person/Body" is marked on the right. A "Battery Ram Car" is also indicated on the right.
- Bottom Right:** A "Pump Switch" is shown, with "BO", "BC", and "LC" markers below it. A "Blowing" area is indicated at the bottom right.

Red Annotations and Actions:

- Build:** Multiple red lines labeled "Build" are drawn across the plan, indicating areas where structures were built or reinforced.
- Cleaned:** A red line labeled "Cleaned" is drawn near the "Borehole" and "Scoop Batteries" area.
- Removed:** Red lines labeled "Removed" are drawn near the "Pump w/ Cable" and "Battery Scoop" area.
- Post to Person after Team Stop #9 Person/Body:** A red line points to a specific location near the "Body" marker.
- Gas Readings:** Two sets of gas readings are noted: "5.0 % CH₄, 0 PPM CO, 19.4 % O₂" near the "Borehole" and "Scoop Batteries" area, and "5.0 % CH₄, 0 PPM CO, 19.4 % O₂" near the "Pump Switch" area.

Other Markers:

- BC (Breathing Circuit):** Multiple markers are scattered throughout the plan.
- LC (Life Support):** One marker is located near the "Pump Switch".
- BO (Borehole):** One marker is located near the "Pump Switch".

Airtight

DAY 1 - Vent 5

