

2025 Alabama UG Mine Rescue Contest  
Day 2 – May 14, 2025

PREPARED STATEMENT

Your services are needed at the Fly-by-Night Mine. Three miners arrived early for Day Shift to perform dead work and maintenance on the #1 Section. Shortly after starting, one miner came out and said something had happened but wasn't sure exactly what. He was working at the section turn-out area but heard what sounded like either a roof fall or an explosion. There has been no contact with the other miners.

The Fly-by-Night Mine is a bituminous coal drift mine ventilated by a permissible exhausting main mine fan located outside. The 3-entry A-Main Section developed into the mine from a box cut and turned right to develop the 3-entry #1 Continuous Miner Section. There are no other mines above or below or nearby in the same seam.

The main mine fan is not currently operating. Due to issues with the main mine fan, it cannot be turned off after it has been started. If the main mine fan is started, there must always be air exhausting through the fan. If all air to the fan is cut off, the fan will go into stall. The fan cannot be reversed.

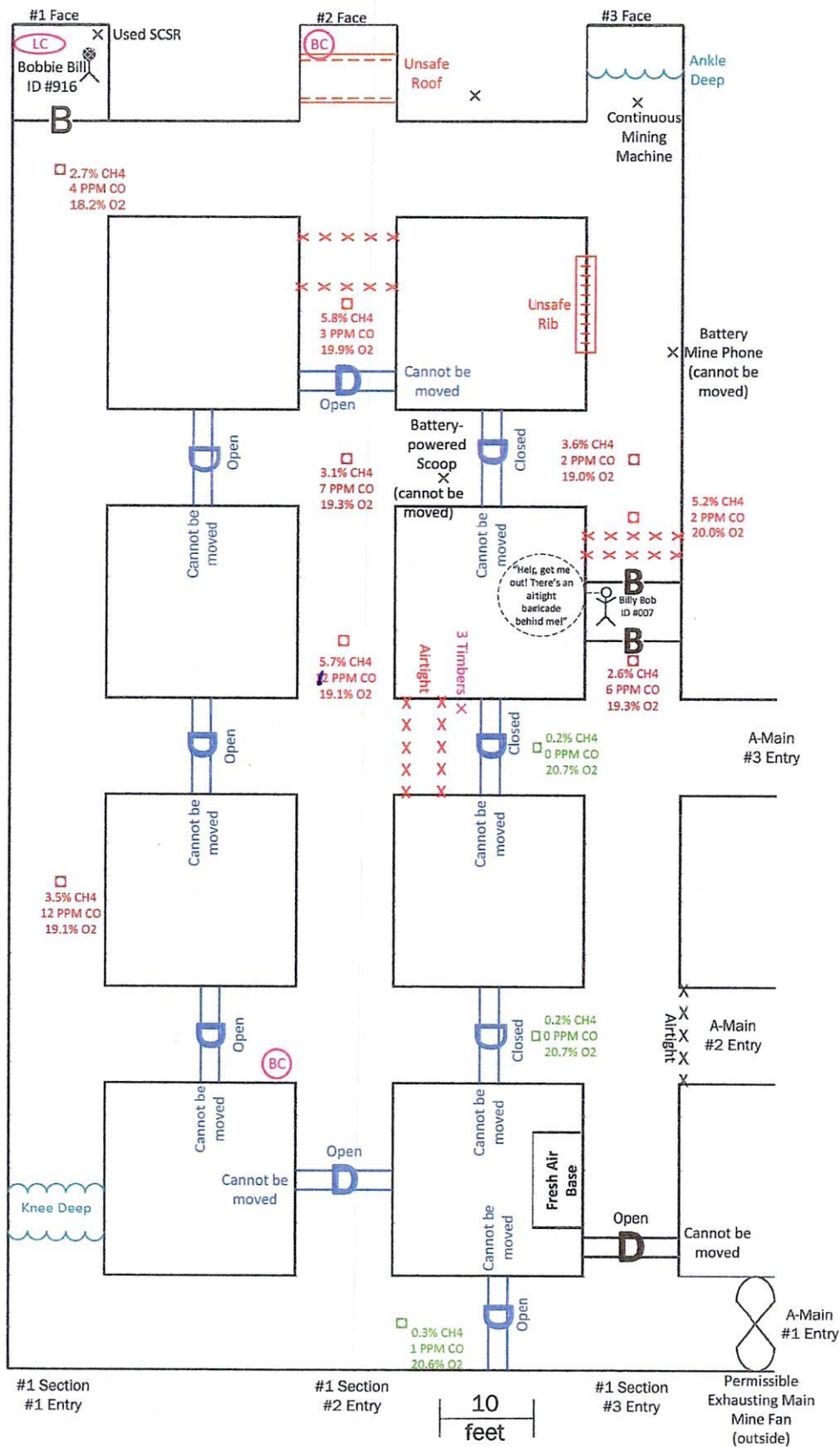
The mine has recently experienced a number of methane, water, and roof issues.

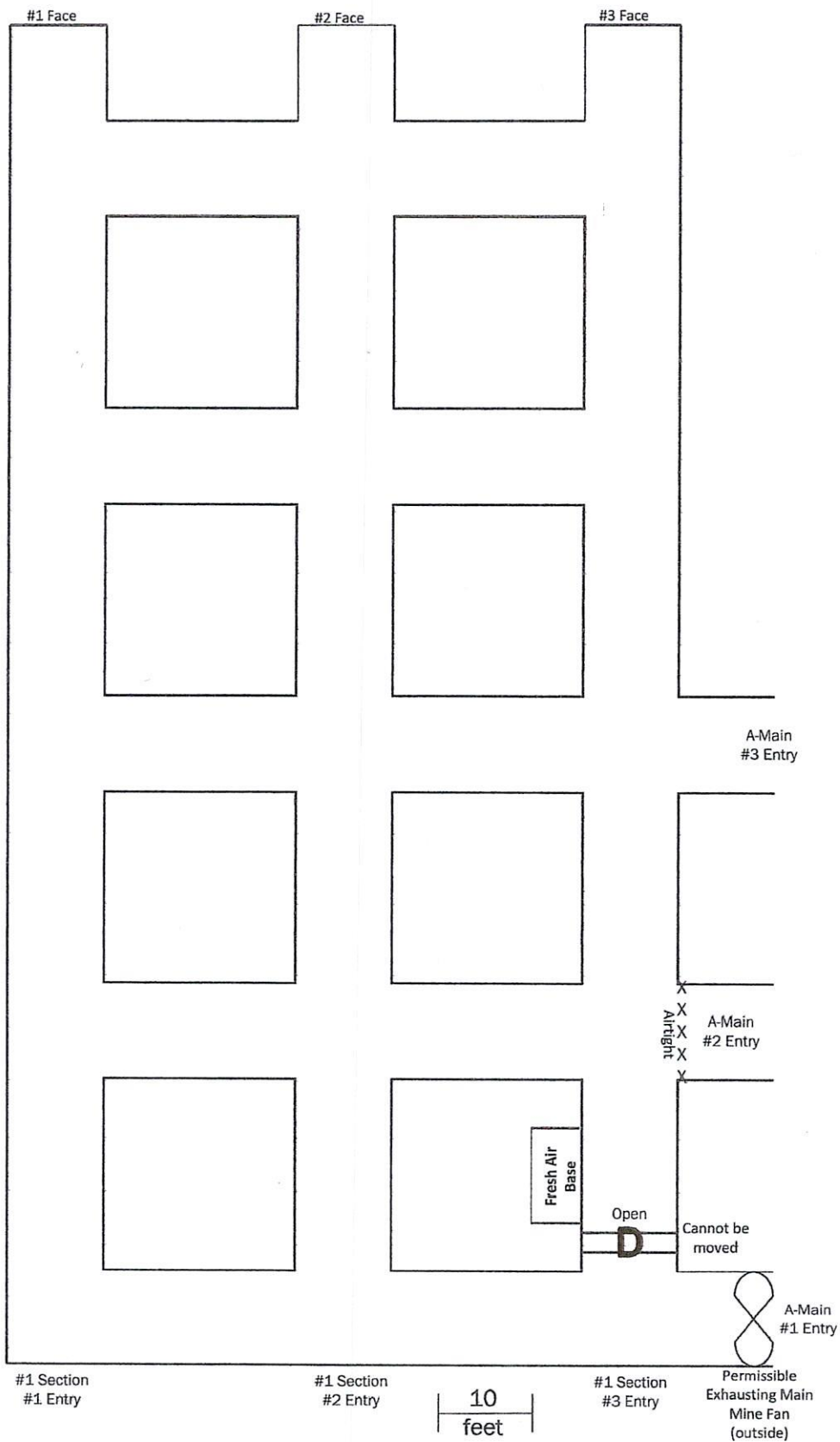
All underground power has been de-energized at the surface.

A mine rescue team has already explored the A-Main entries and the entries can be used for ventilation. The team established a Fresh Air Base as well. Everything you need to work the problem is in the mine.

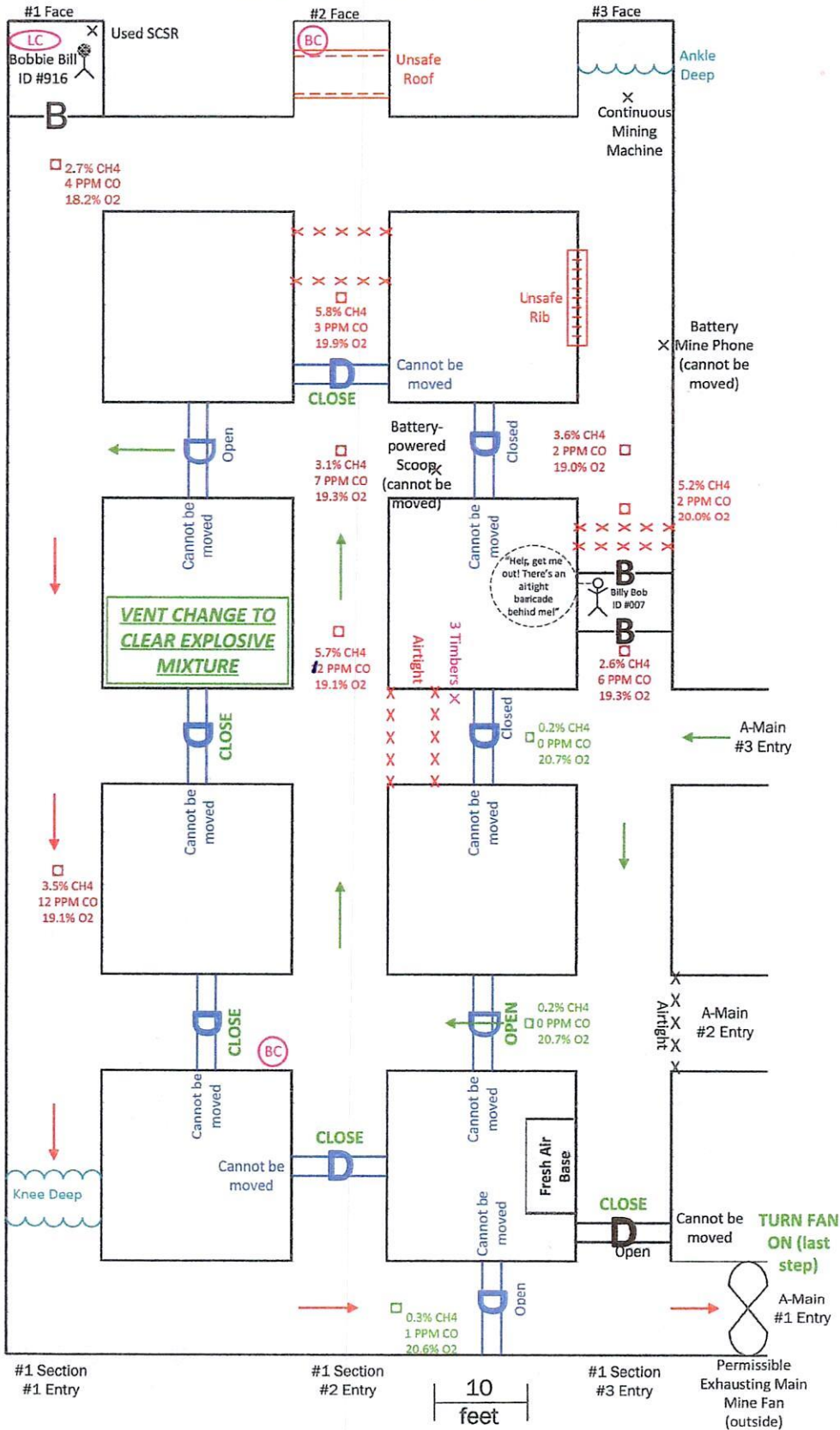
You have 90 minutes to complete the problem. Your assistance is appreciated very much. Good luck!

## DAY 2 – Problem Map



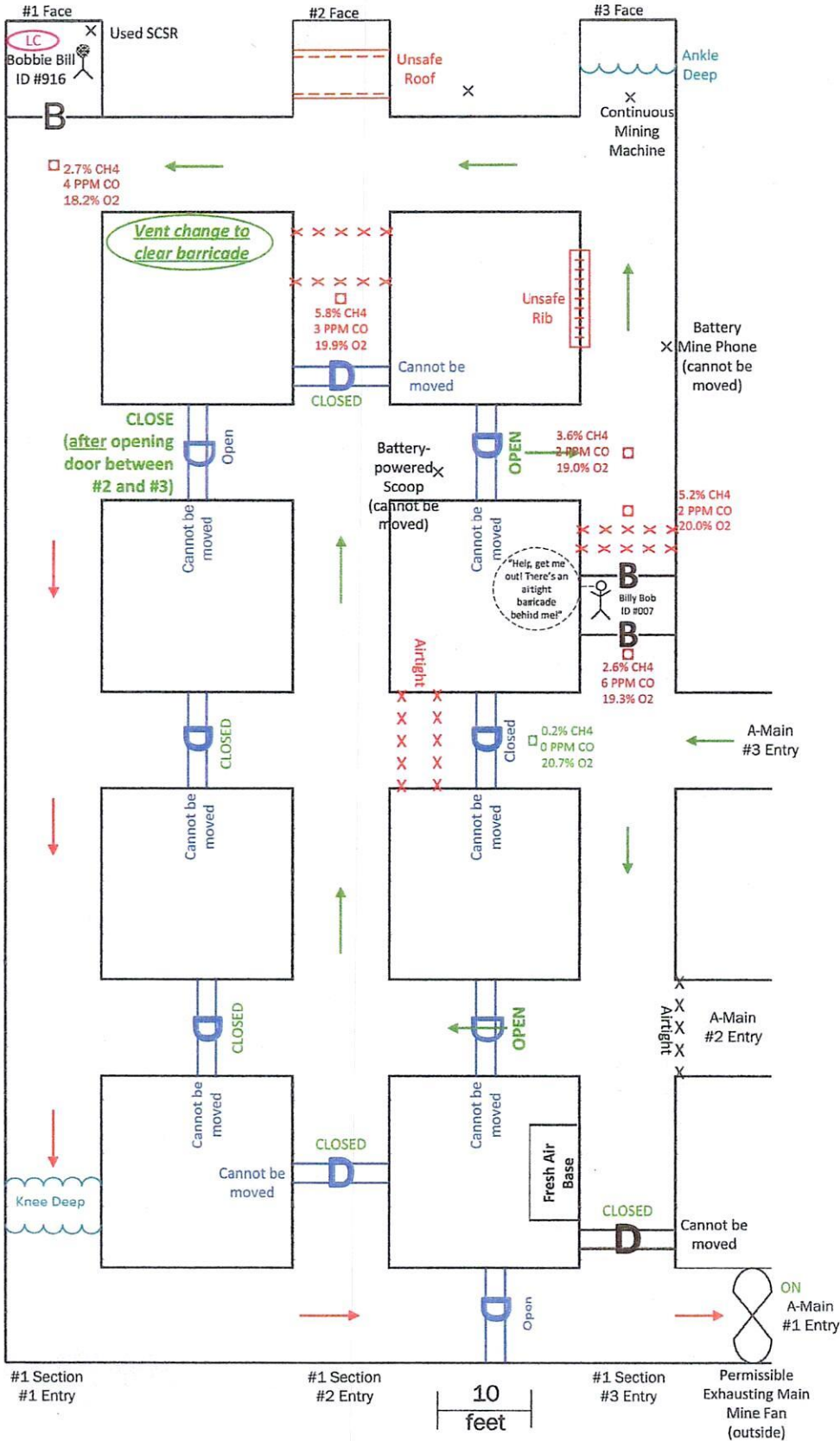


# DAY 2 – Ventilation 1

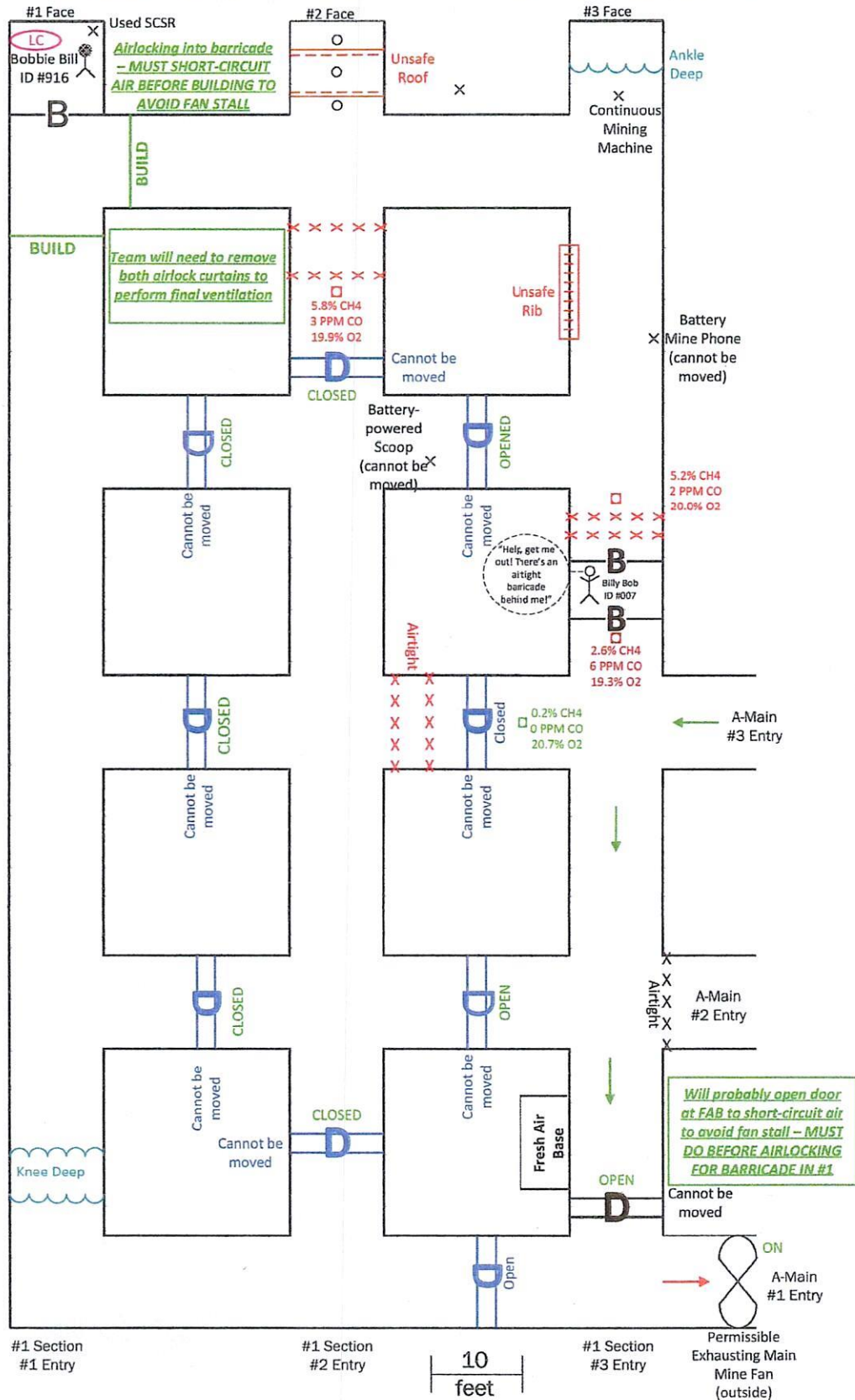




# DAY 2 – Ventilation 2



## DAY 2 – Ventilation 3 (Airlocking) Map



# DAY 2 – Ventilation 4

