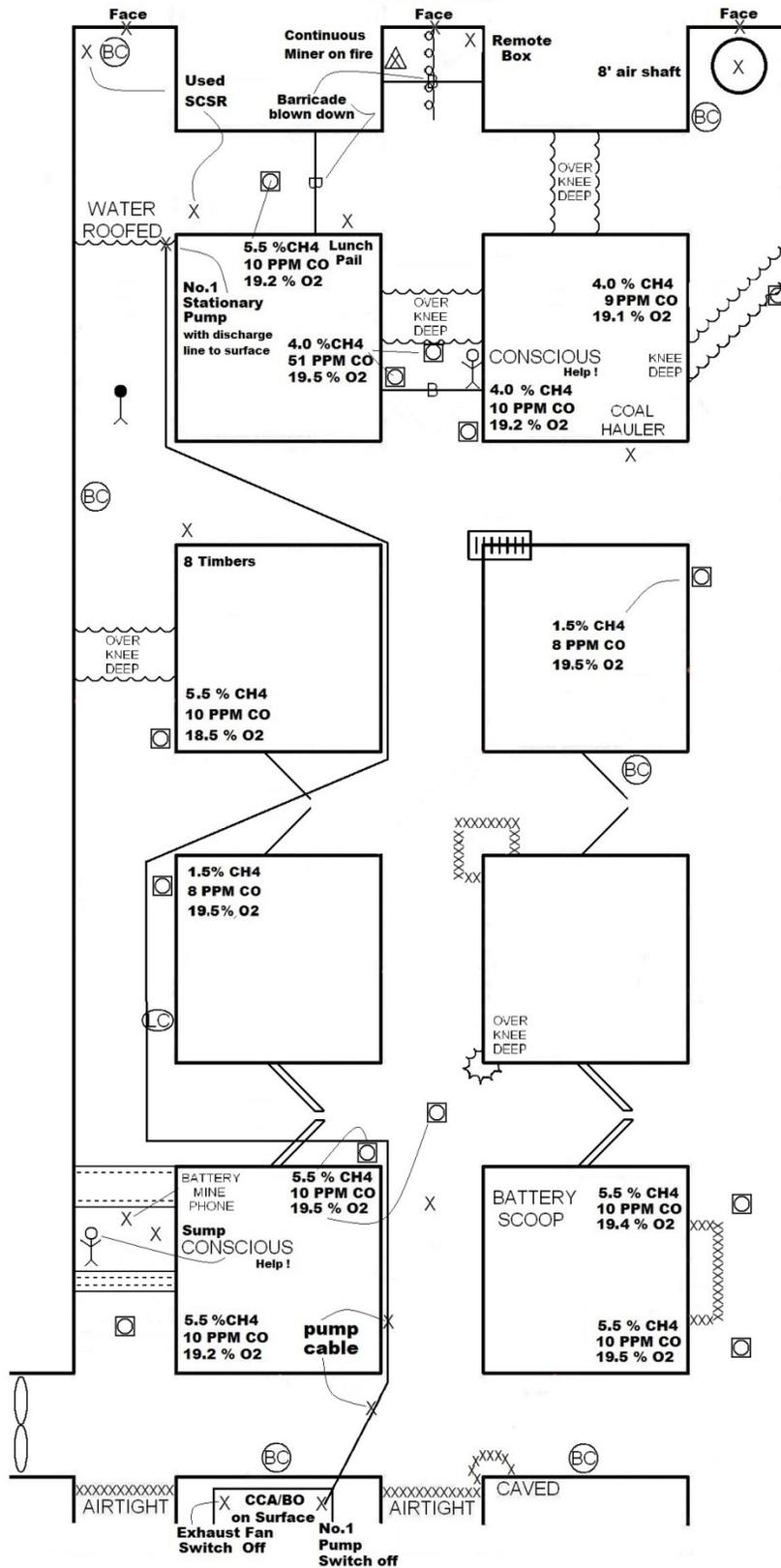


2016 Post 5 & West Virginia State Mine Rescue  
Contest  
Day 2



Problem Briefing

2016 Post 5 Day 2



# **2016 Post 5 & West Virginia State Mine Rescue Contest Day 2 Statement**

**You are located in the first crosscut of WVS # 2 mine. This mine just reopened after several months of being idle due to an explosion. Thanks for answering our call for help.**

**The RP said that the underground foreman had called outside about two hours ago and said that he and his 2 electricians was having trouble with the continuous miner.**

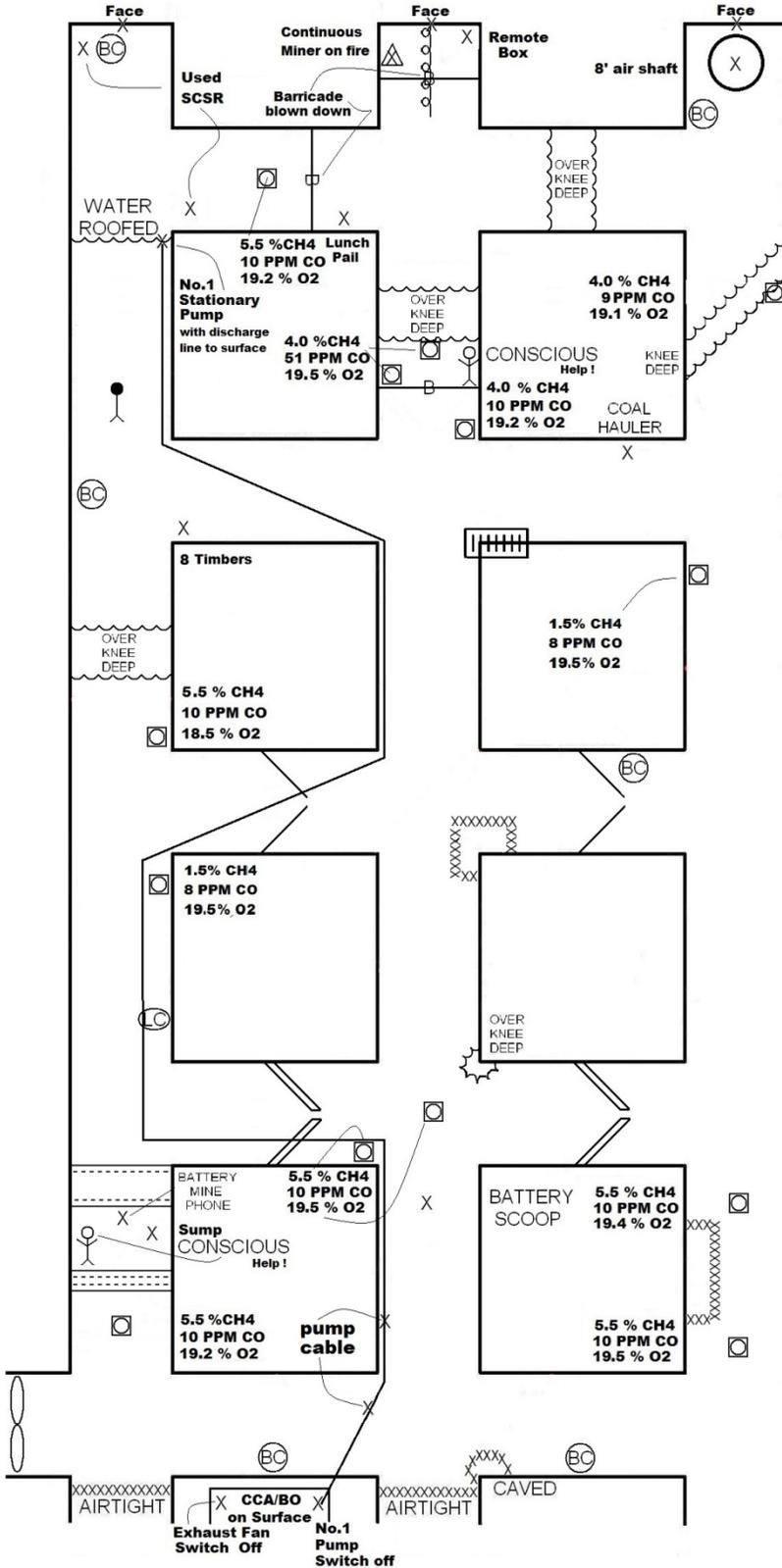
**The foreman said that the main breaker on the miner was knocking and they would call outside when the miner was repaired. We heard what sounded like an explosion a few minutes after he called out and then the exhaust fan stopped. We cannot reach the foreman by phone. The RP said that he went inside the mine and found high concentrations of CH<sub>4</sub> and decided to come back outside.**

**The fan has been checked by a qualified person and has been deemed safe for use if needed. We do have an airshaft in the no.3 entry that can be use for ventilation. The power going inby the fresh air base has been locked out and guarded. The power going to the no.1 pump switch in the command center is off and being worked on at this time. We will let you know when the pump switch has been repaired. A trained mine rescue team is here to back you up and the mine maps that you will receive once the clock has started are up to date.**

**Please find the three missing miners and bring survivors to the fresh air base.**

**Be careful and explore safely.**

2016 Post 5 Day 2



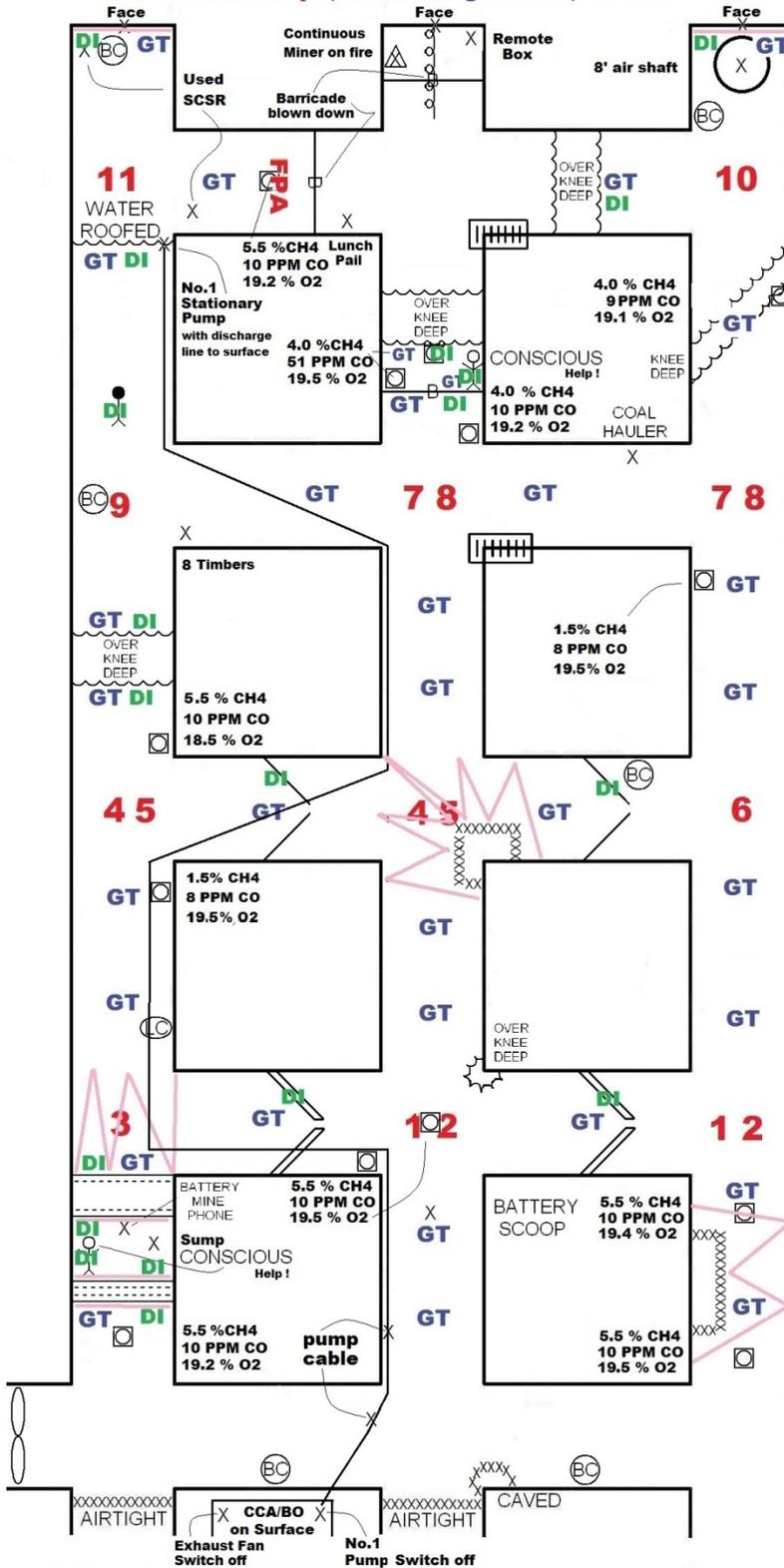
# 2016 Post 5 Day 2

## Problem

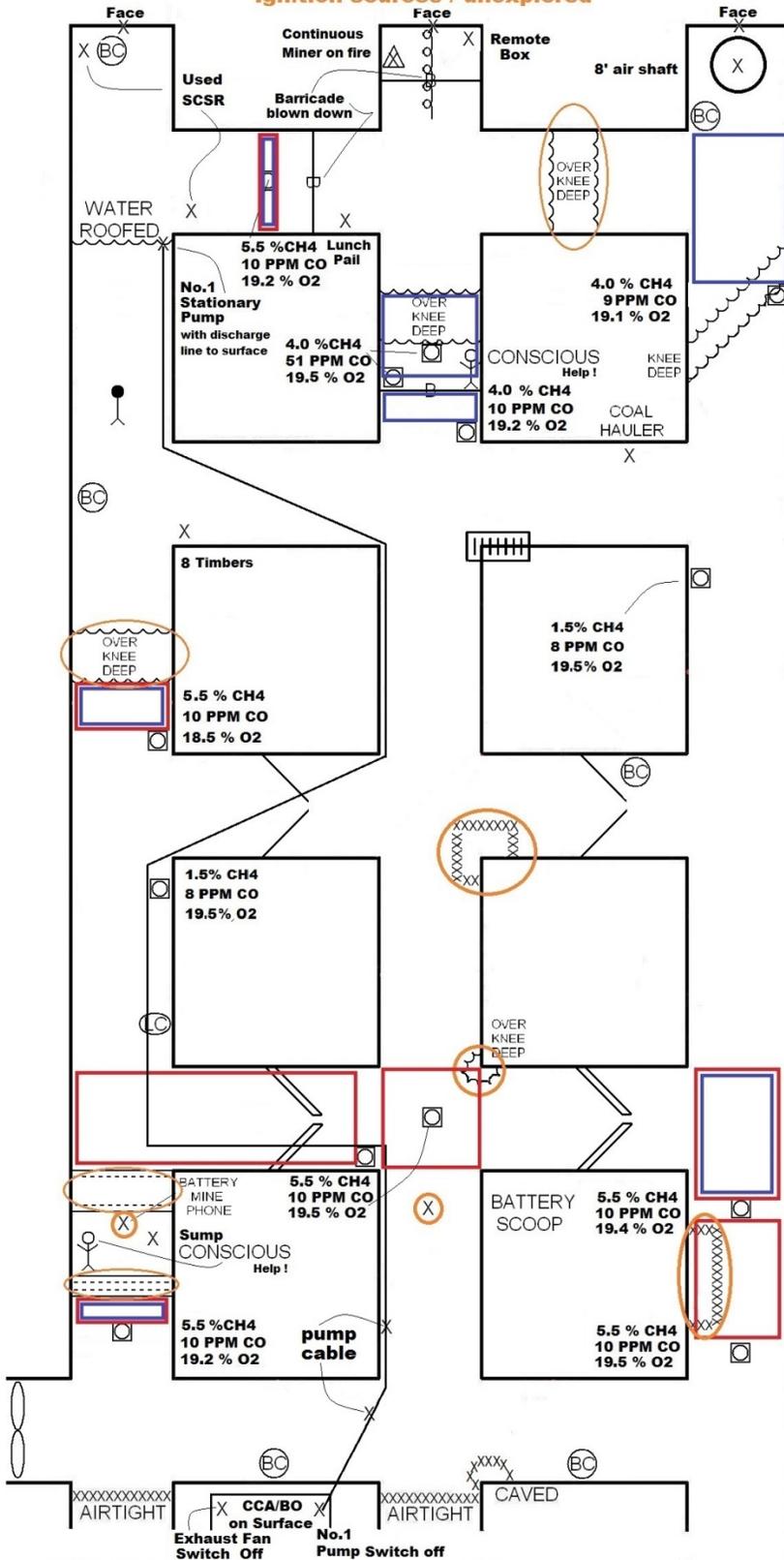
### (Written Instructions)

- **EXPLORE THE ENTIRE MINE THAT CAN BE SAFELY EXPLORED (INCLUDING AREAS THAT ARE INACCESSIBLE IF MEANS ARE PROVIDED TO EXPLORE SAFELY BEFORE STOPPING THE CLOCK)**
- **FAN SWITCH AND PUMP SWITCH IS CONTROLLED BY THE COMMAND CENTER / BO**
- **THE FAN CAN BE STOPPED AFTER STARTING. DO NOT STALL THE FAN WHILE IT IS RUNNING**
- **THE EXHAUST FAN CAN BE REVERSED**
- **YOU CANNOT CARRY MORE THAN 3 BRATTICE CLOTH WHILE ADVANCING OR RETREATING**
- **BO/CCA IS OUTSIDE AND ISOLATED**

**Team stops, date/int. gas test, roof/rib**



**Explosive, Irrespirable  
Ignition sources / unexplored**



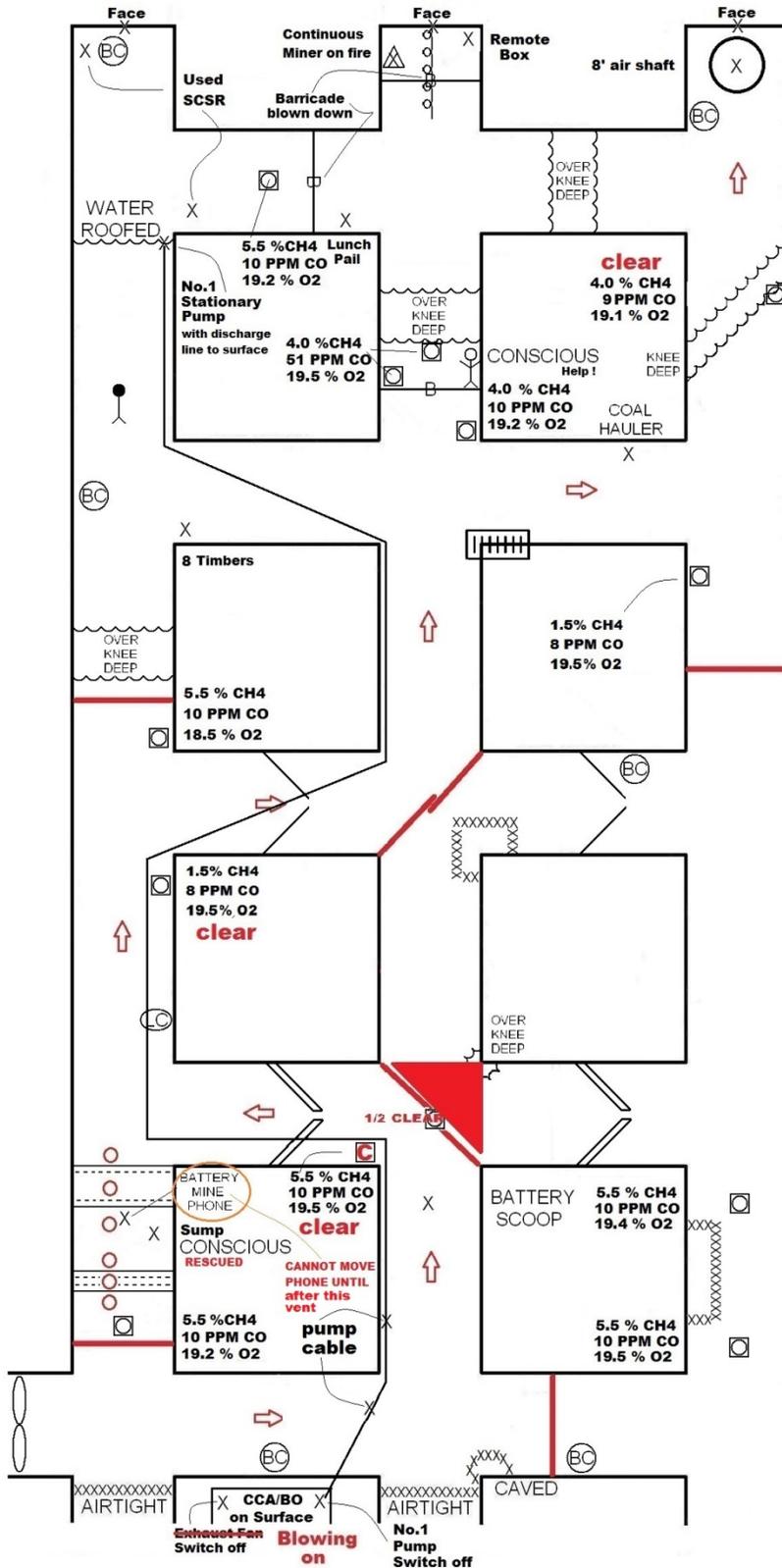
PATIENT STATEMENT IN  
UNSAFE ROOF IN NO.1 ENTRY  
ON OUTBY SIDE AND INBY SIDE

**HELP! THE ROOF IS  
UNSAFE ON BOTH  
SIDES OF ME.**

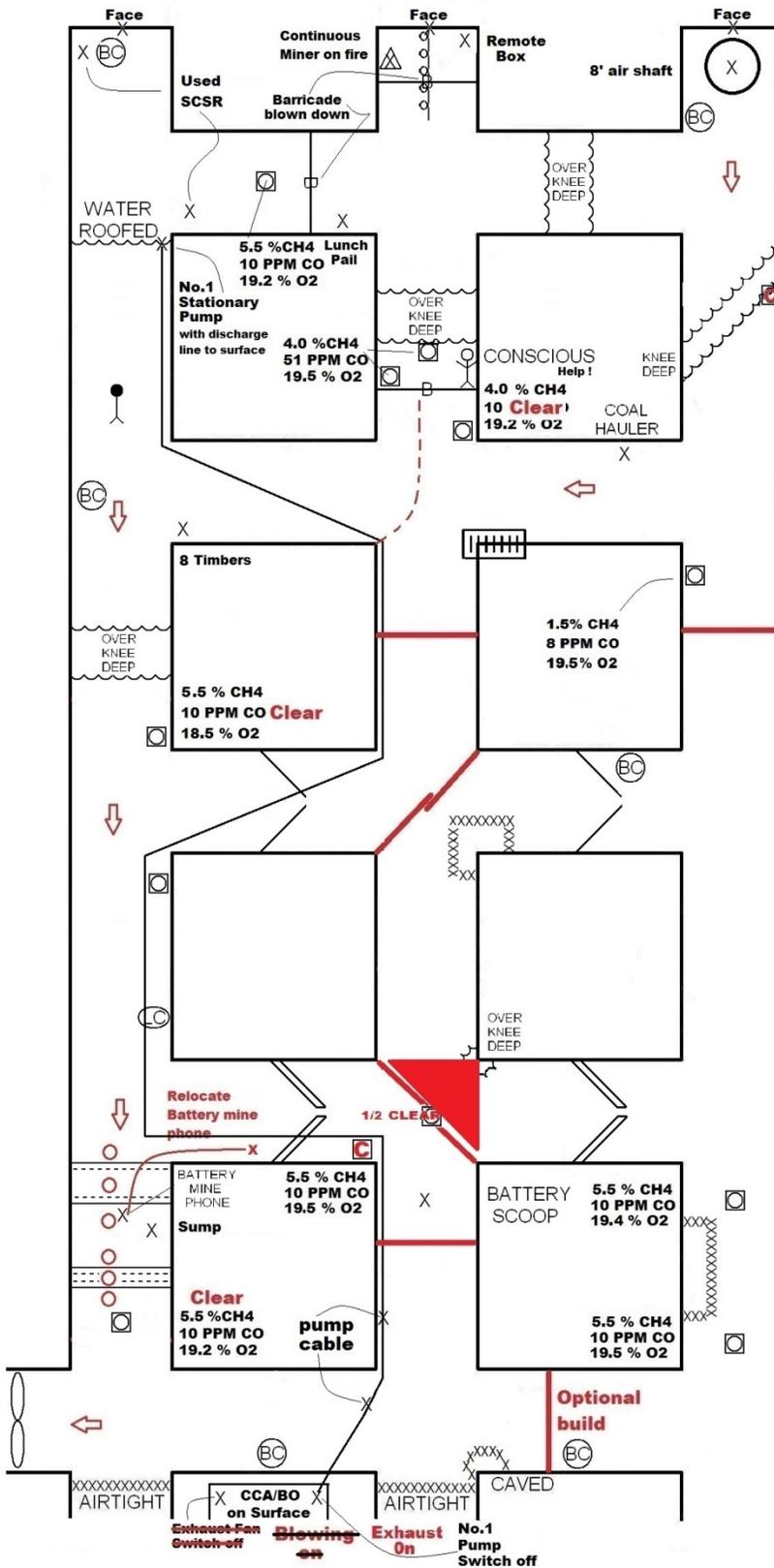
PATIENT STATEMENT  
IN BARRICADE IN NO.2  
ENTRY

**HELP! GET ME OUT  
OF HERE !**

# Vent 1



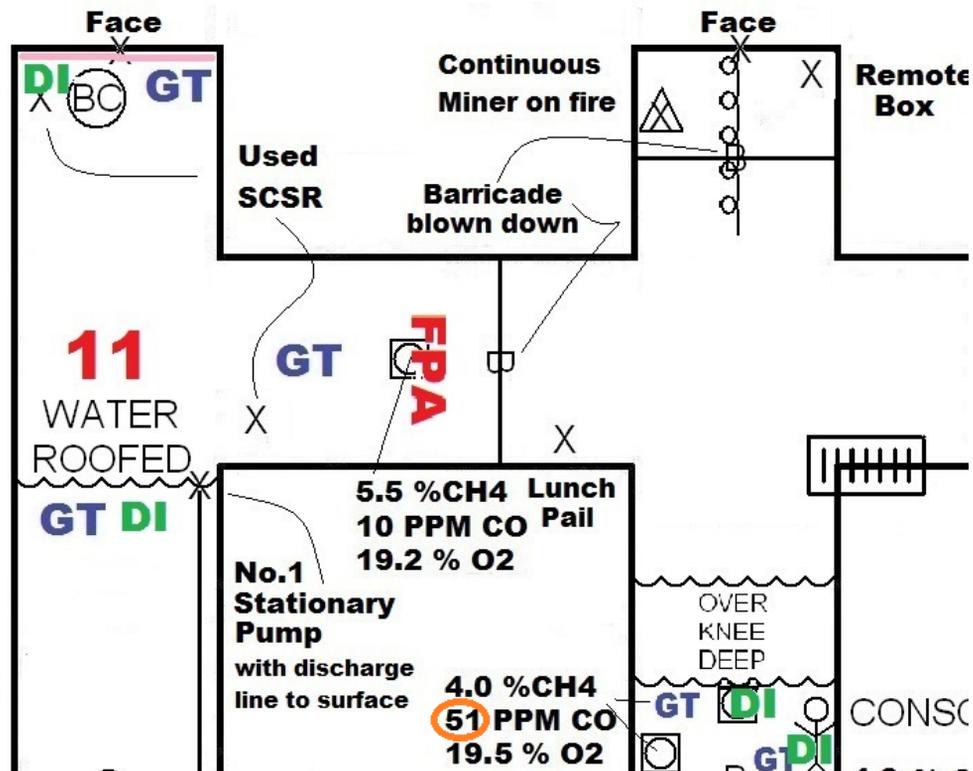
# Vent 2



WHEN TEAM BRINGS THE  
CONSCIOUS PATIENT BEHIND  
BARRICADE IN NO.2 ENTRY  
INTO THE FRESH AIR BASE,  
GIVE THE BELOW NOTE TO  
TEAM

" POWER TO THE NO.1  
PUMP SWITCH HAS BEEN  
REPAIRED AND THE NO.1  
PUMP CAN NOW BE USED  
TO PUMP WATER"

## FPA at end of problem



- Team must airlock to pump water roofed
- Water will pump completely down
- No team member must pass explosive mixture 5.5% CH<sub>4</sub> 10 PPM CO 19.2 % O<sub>2</sub> in crosscut

# Keys to Problem

- TEAM MUST TIMBER TO PATIENT IN UNSAFE ROOF BEFORE GOING TO TEAM STOP #9
- TEAM MUST PROTECT PATIENT FROM LOW O2 IF THEY TIMBER FROM THE OUTBY SIDE OF UNSAFE ROOF AND TAKE PATIENT PAST LOW O2
- TEAM MUST NOT MOVE BATTERY MINE PHONE UNTIL AFTER FIRST VENT IS DONE. THERE IS AN EXPLOSIVE MIXTURE OUTBY AND INBY THE PHONE (See vent 1 map)
- TEAM MUST MOVE PHONE INBY INTO CROSSCUT BEFORE 2<sup>ND</sup> VENT (See vent 2 map)
- TEAM MUST NEVER LET EXPLOSIVE MIXTURE IN NO. 2 ENTRY MOVE WHERE WATER OVER KNEE DEEP IS IN THE INBY RIGHT CORNER INTERSECTION
- TEAM MUST PROTECT PATIENT FROM LOW O2 IN BARRICADE BEFORE MOVING PATIENT
- WHEN TEAM REACHES THE FAB WITH THE LAST PATIENT BEHIND THE BARRICADE IN NO. 2 ENTRY, HAND THEM THE NOTE THAT SAYS " POWER TO THE NO.1 PUMP SWITCH HAS BEEN REPAIRED AND THE NO.1 PUMP CAN BE USED TO PUMP WATER"
- TEAM MUST AIRLOCK TO PUMP WATER ROOFED IN NO. 1 ENTRY (WATER WILL PUMP COMPLETELY DOWN)
- NO TEAM MEMBER CAN PASS THE EXPLOSIVE MIXTURE AT TEAM STOP #11 (EVIDENCE OF FIRE IN NO.2 ENTRY EXTENDING INTO THE WATER OVER KNEE DEEP AND EXPLOSIVE MIXTURE IN CROSSCUT GOING TOWARD NO.2 ENTRY FROM NO.1 ENTRY)