

**Welcome to the 48th Consecutive Virginia
Mining Institute Safety Day Contest
2014**



V-1-14 Statement

Thank you for answering Virginia Mining Company's call for help. We have had a problem at the No. 48 mine and your assistance is urgently needed. You are located on the surface at the top of the No. 1 ventilation shaft of a new mine which consist of an area underground of two sections being developed North and South. The No. 1 ventilation shaft is a split shaft with an elevator installed on the intake side for employees to enter and exit the mine. Two days ago the North section cut into the No. 2 return shaft. The mine is being ventilated by two exhaust fans, the No. 1 exhaust fan is located on the return side of the No. 1 ventilation shaft, and the No. 2 exhaust fan is located on the No. 2 ventilation shaft on the North section. Only the No. 1 fan has self closing doors installed that close when the fan is not operating. When the No. 1 fan is running and the No. 2 fan is off, intake air will intake down the No. 2 shaft. Both fans are presently off and can be started by turning the switch on, on the surface. When started, they cannot be turned off or reversed.

Last night at 12:01am 11 men entered the mine to conduct ventilation and maintenance work on both sections. At 3:00am one man called the surface reporting that low oxygen had been detected on the South section and the crew was feeling light headed. Several attempts to contact the missing miners have been unsuccessful.

**V-1-14
Statement**

The mine does liberate methane gas. Poor roof conditions have been encountered at times and some water accumulation has occurred from time to time.

All electrical power to the underground area of the mine has been de-energized and locked out, power is supplied to the fan and pump switches located on the surface near the mine entrance.

The power cable to the no. 2 pump is presently being repaired, when it is fixed and ready for use you will be notified.

The mine map is not up to date; when more information is obtained you will be notified.

Both agencies have been notified and are present.

A backup mine rescue team is present to act as your back up

We have a competent life line judge available (point out). Two blank maps and the team's written instruction will be provided when you are ready to begin work.

V-1-14
Team Instructions
Problem

- Rescue all live persons and bring them to the surface.
- Account for all missing miners.
- After the team starts a mine fan they cannot stop or reverse the fan(s).
- The team cannot move any ventilation control that's anchored to the ground.
- A time limit of 80 minutes has been established for this problem. The team will be advised 10 minutes prior to this time limit expiring

Virginia Mining Institute

V- 1 – 14

Patient Note #1

**(Patient “Terry McKinney “Behind barricade at Caved area
between No. 2 and 3 entry)**

**“ Help, Help, get me out..... I have a
Caved Area Behind me”**

Virginia Mining Institute

V- 1 – 14

Patient Note #2

(Patient “Randy Willis” Behind Barricade in # 3 Entry)

**“ Help, Help, get me out..... It is
Airtight Behind me”**

Virginia Mining Institute

V- 1 – 14

Team Note # 1

If Team has made the Barricade in the No. 1 Entry (Give to team when Live Person Randy Willis is brought to the surface,

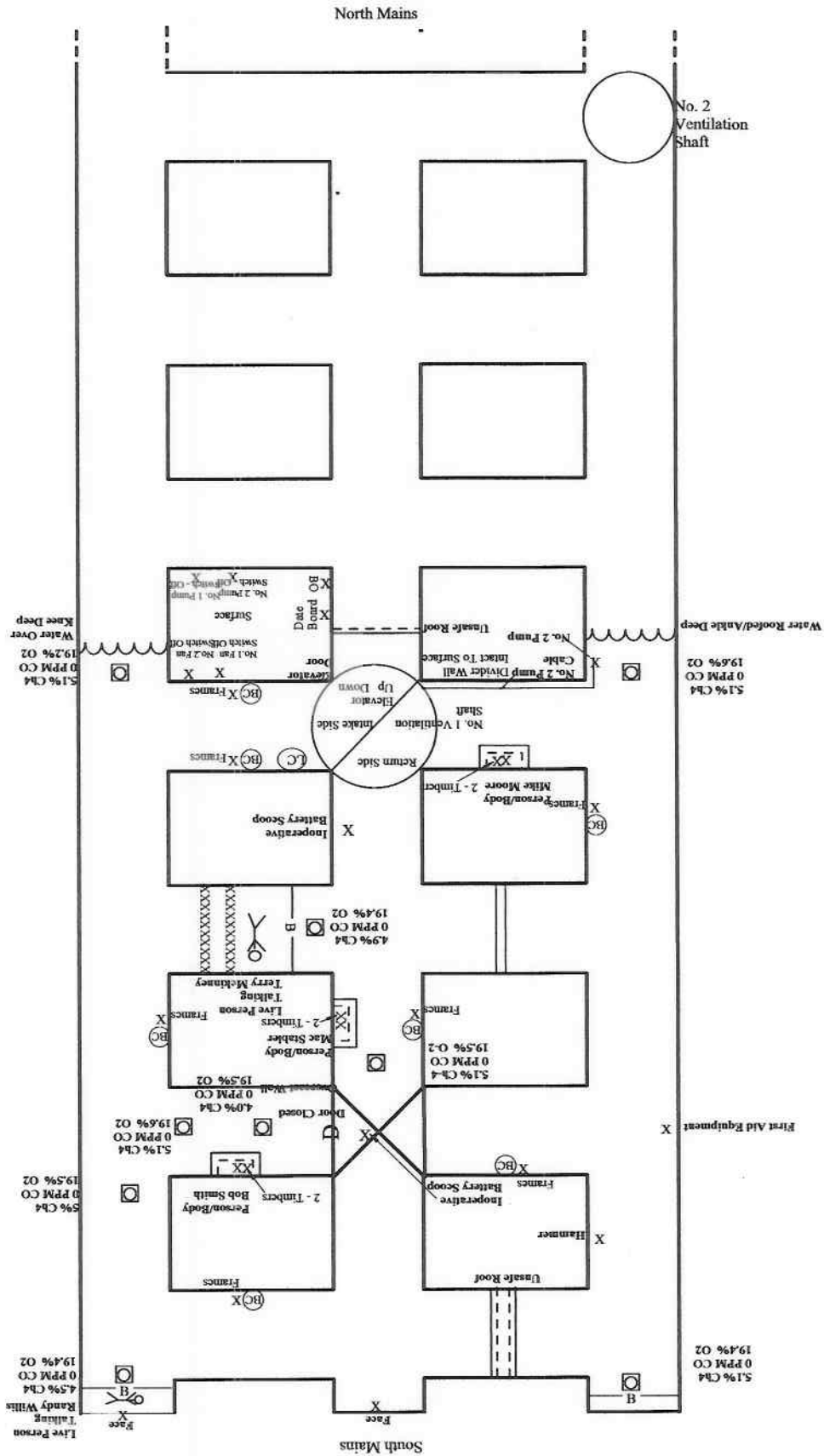
However, If Team Hasn't been to the Barricade in the No. 1 entry and brings Randy Willis to the surface, Wait and give the note to the Team when they Make the intersection at the Barricade in the No. 1 entry.

**“ Your Time Underground is Completed,
Stop The Clock and Turn in Your Maps”**

Virginina Mining Institute

August 5, 2014

V -1- 14



Virginia Mining Institute

August 5, 2014

V -1- 14

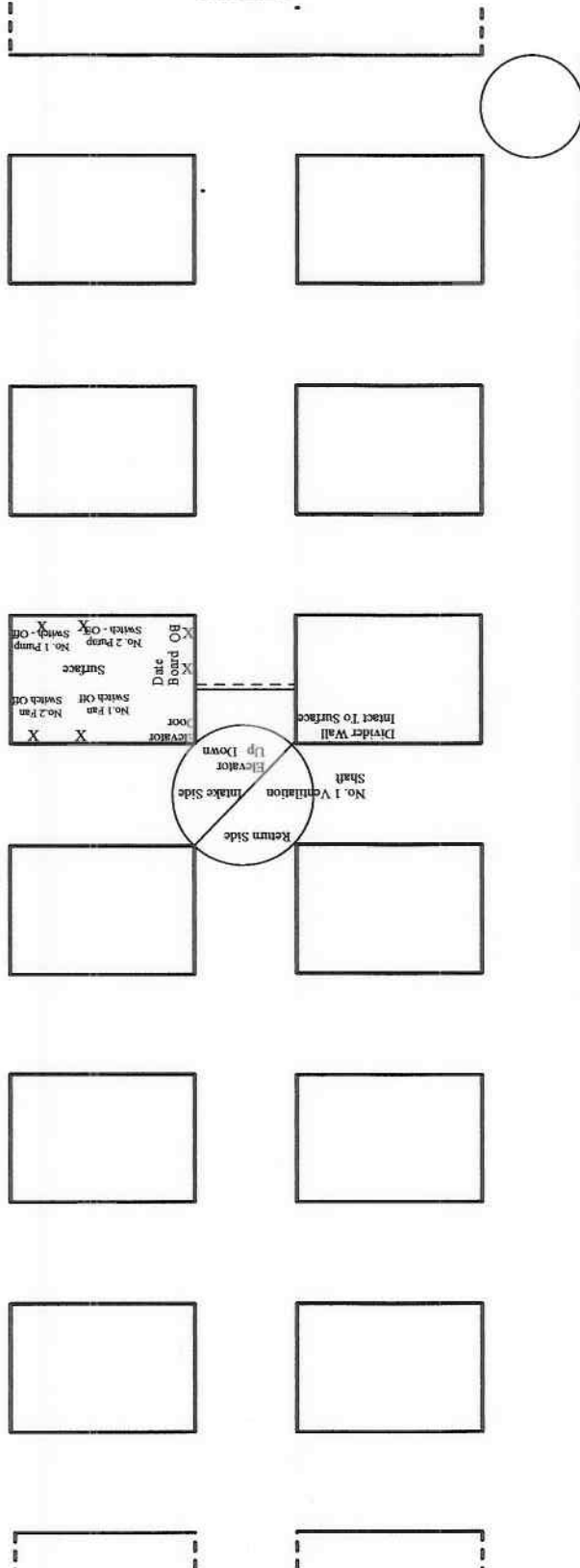
Team Map

Team No. _____

Field No. _____

North Mains

No. 2
Ventilation
Shaft



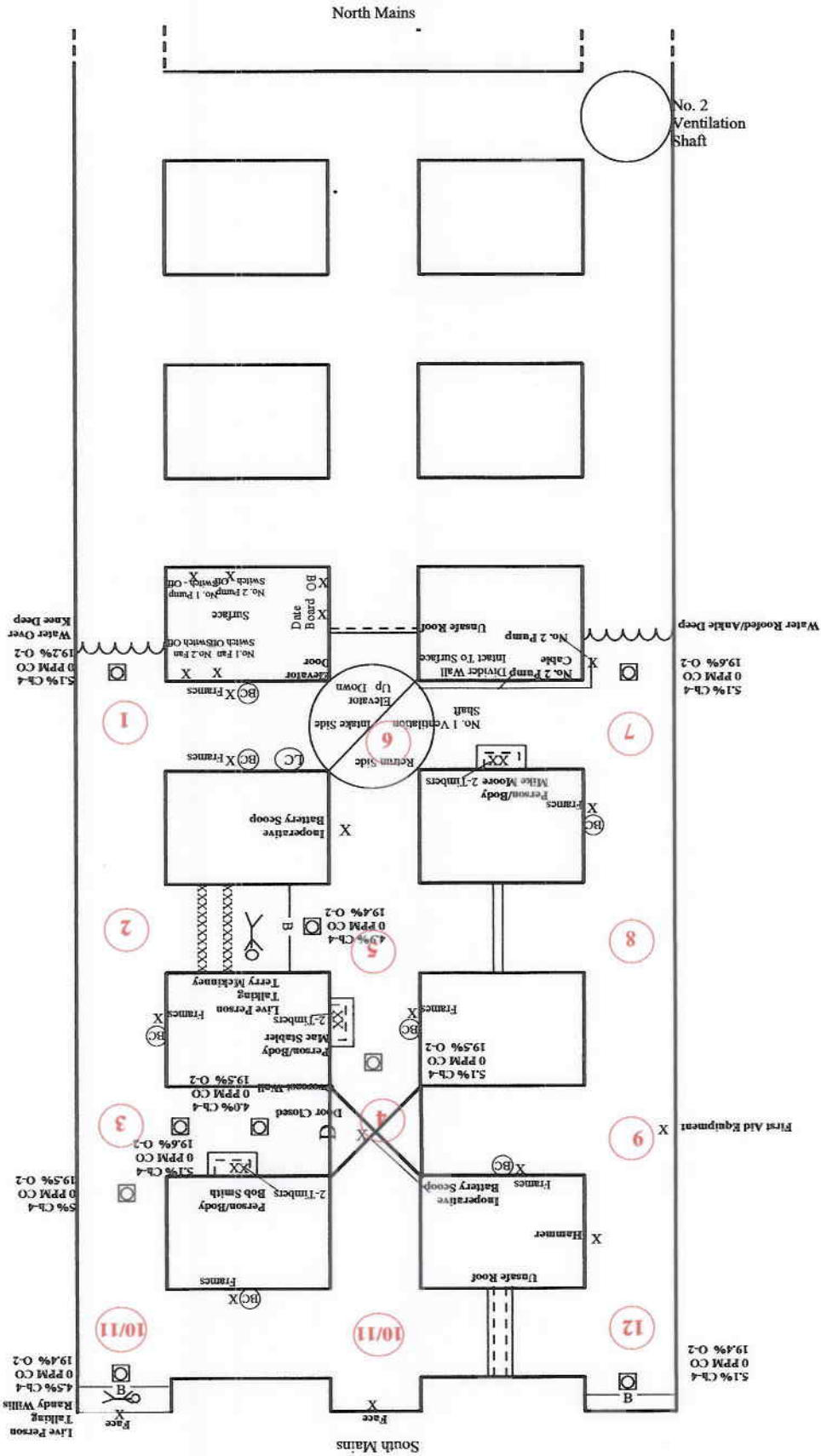
Scale: 1" = 10'

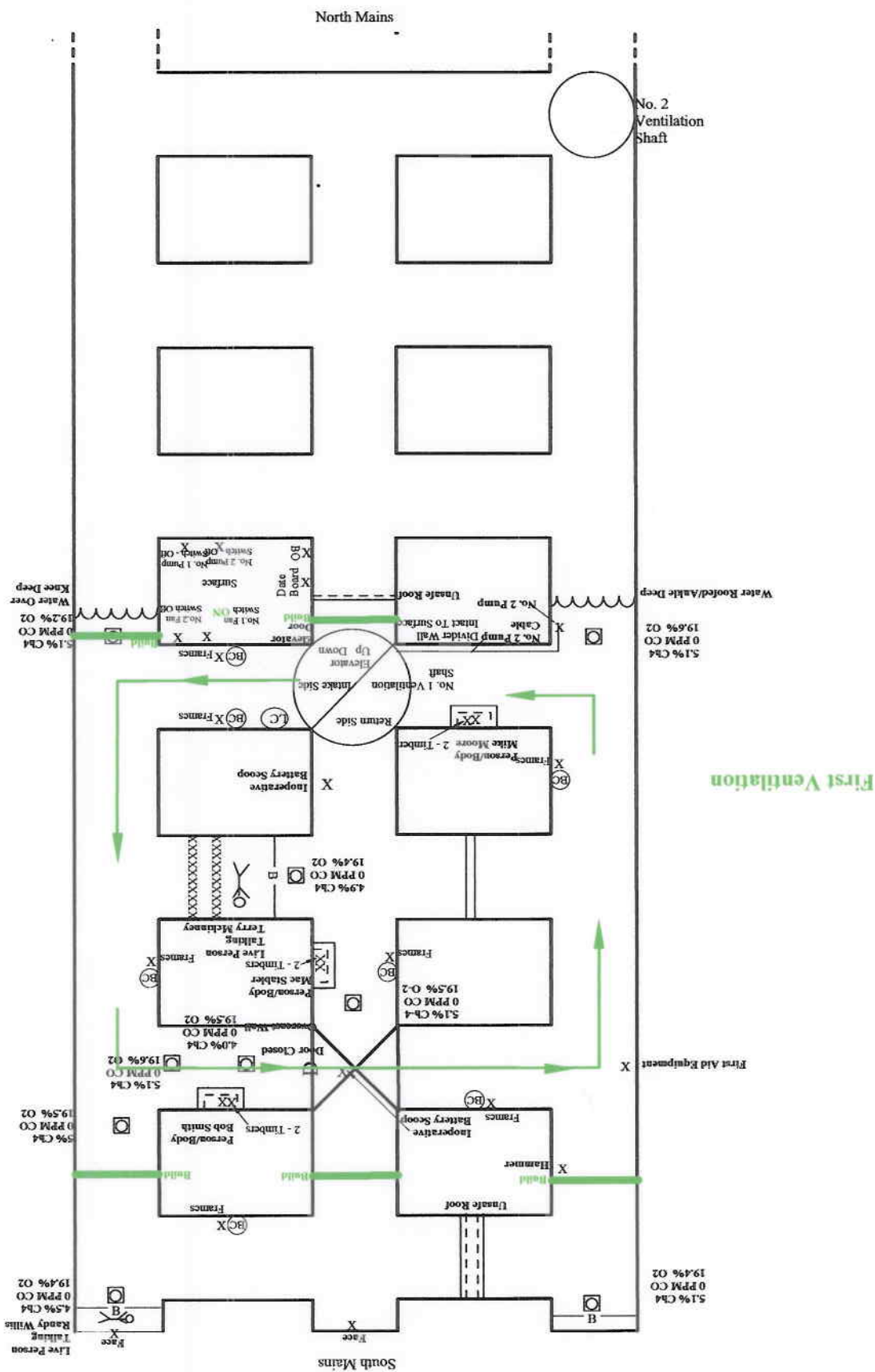
South Mains

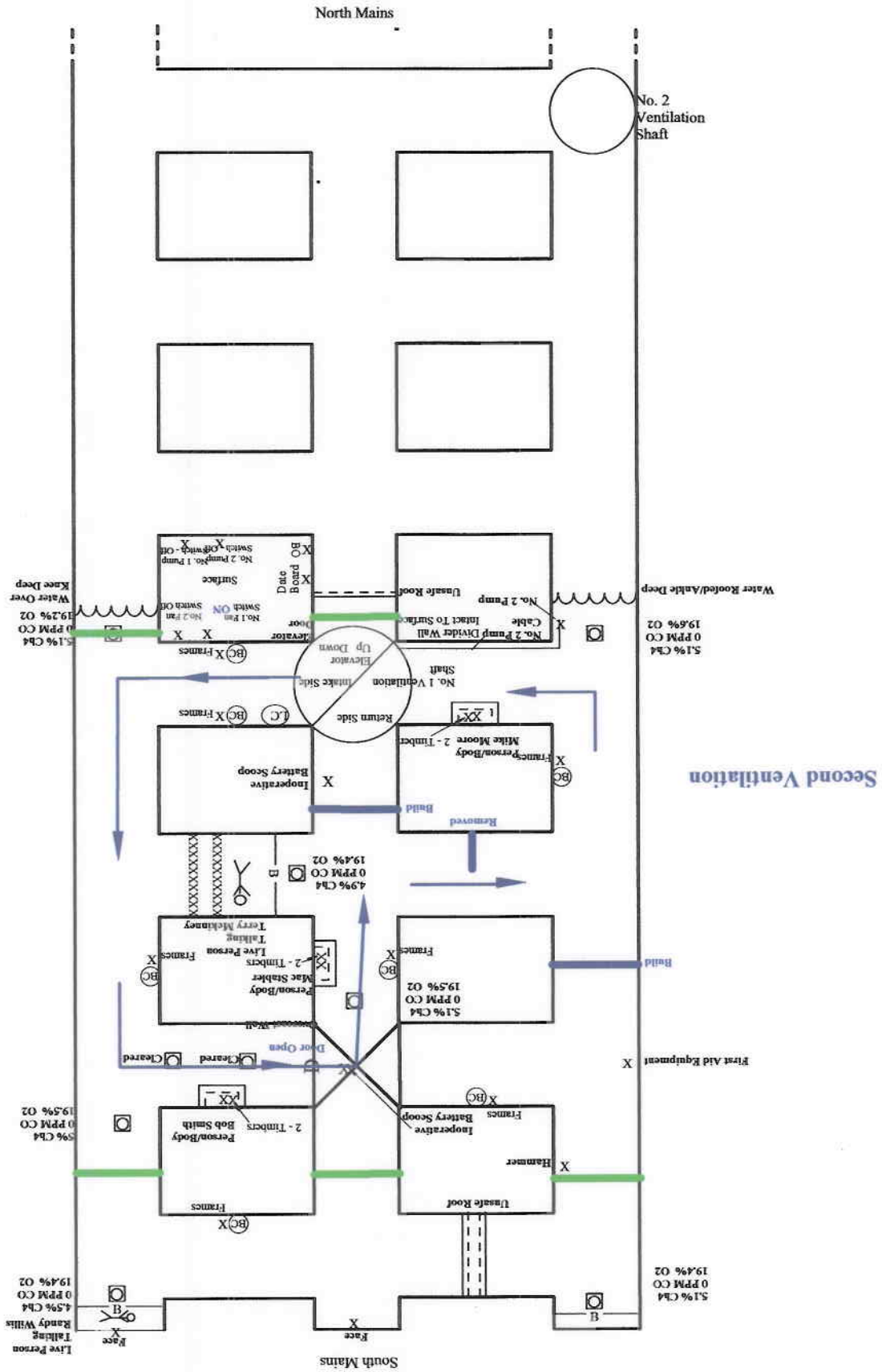
Virginia Mining Institute

August 5, 2014

V-1-14



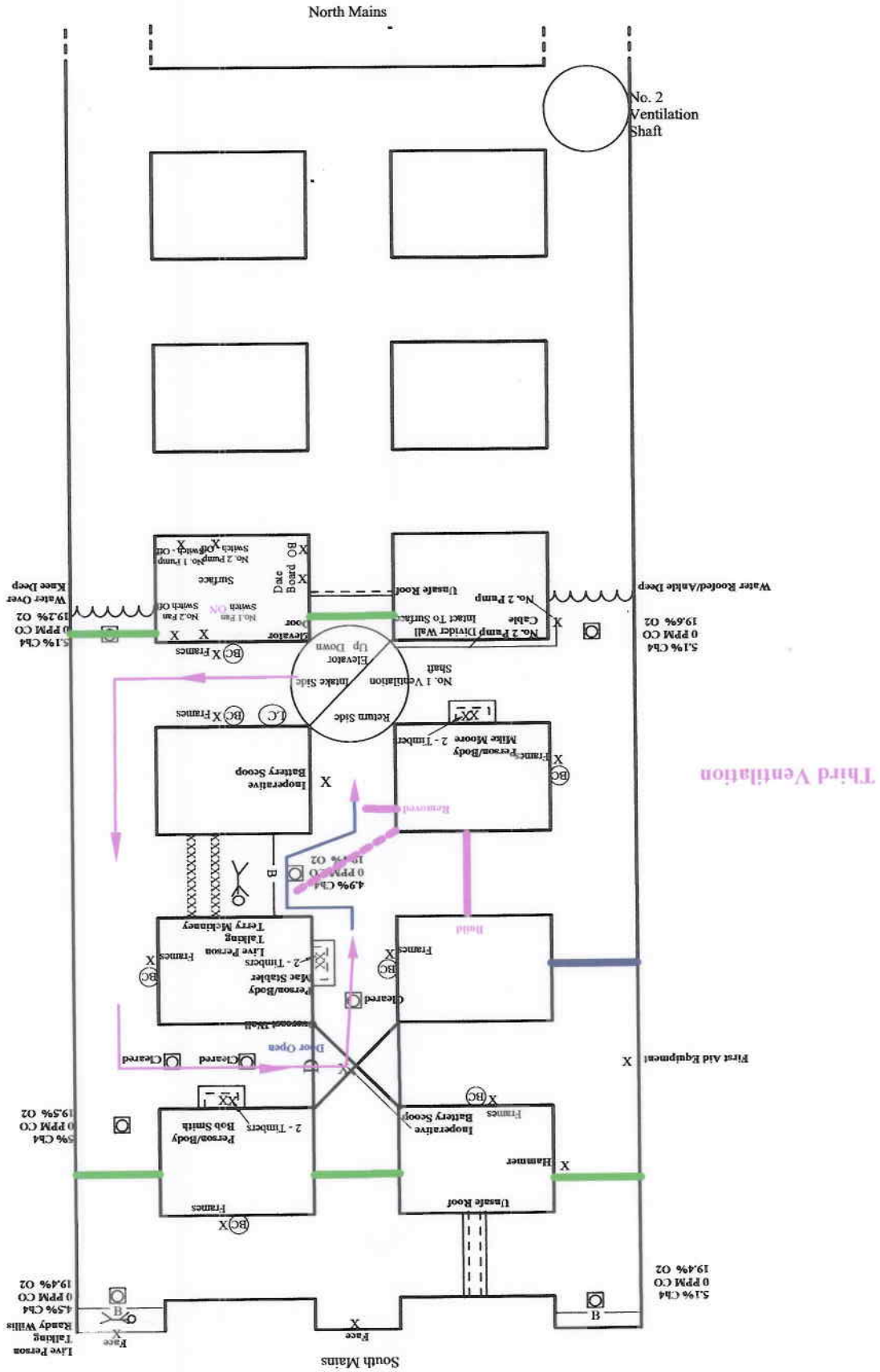




Virginia Mining Institute

August 5, 2014

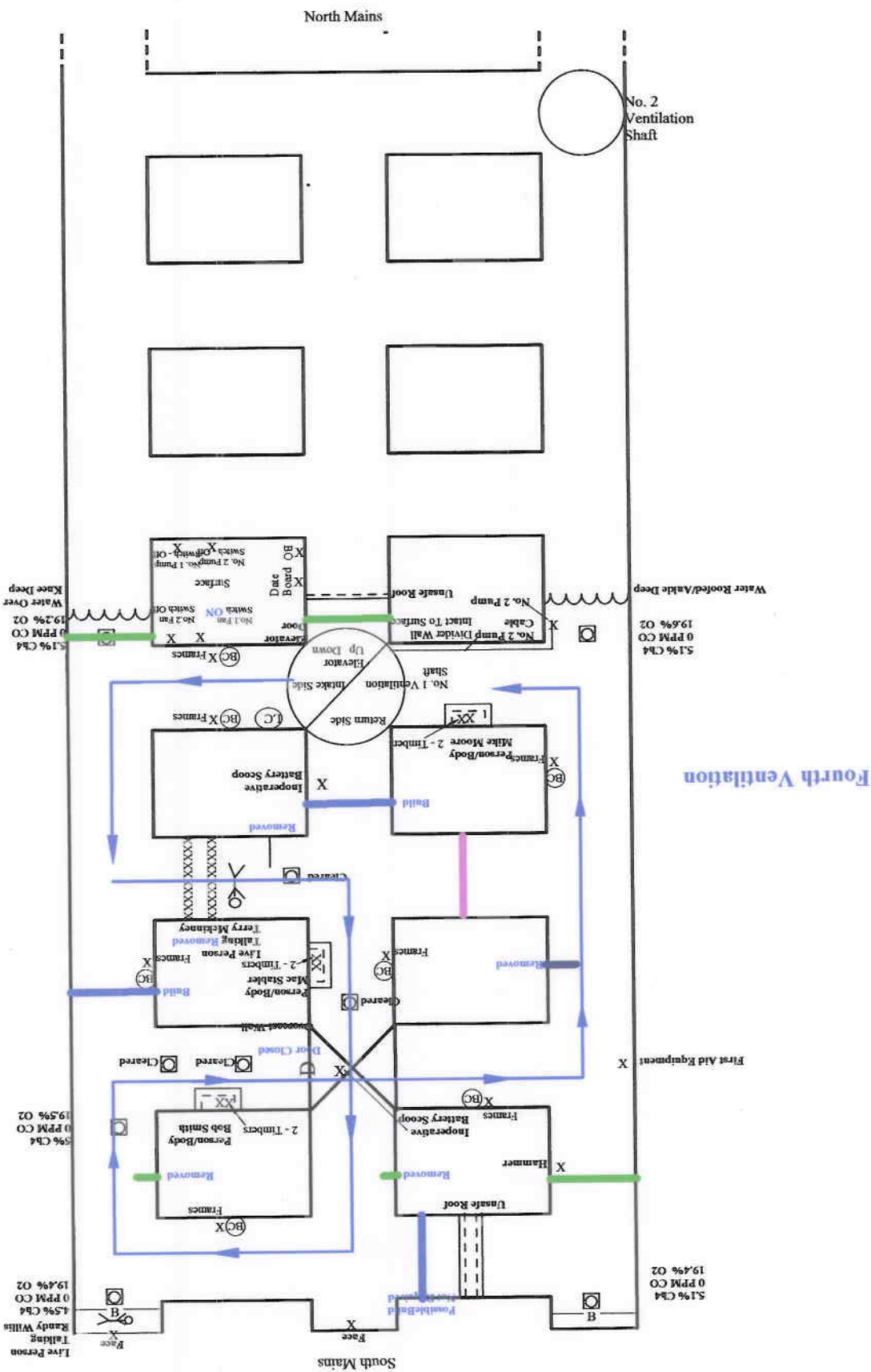
V-1-14



Virginia Mining Institute

August 5, 2014

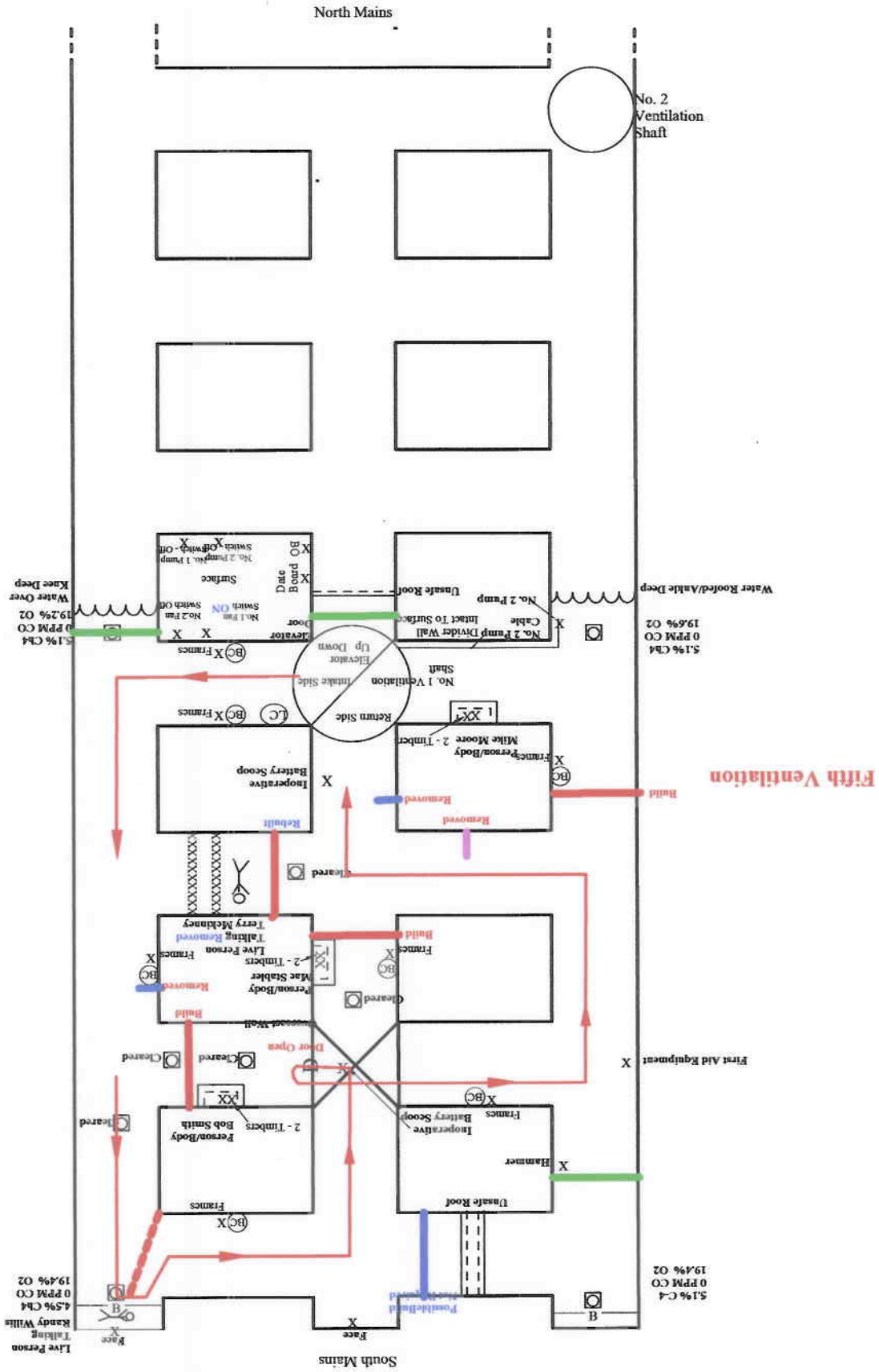
V-1-14



Virginia Mining Institute

August 5, 2014

V-1-14



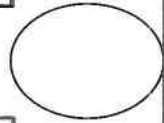
Virginia Mining Institute

2014

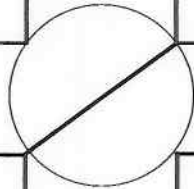
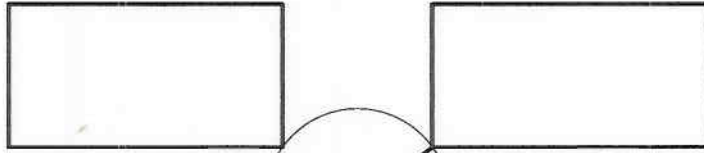
GROUND RULES

- Nails are not to be used on the field. Frames anchored in place on the field cannot be disassembled. When using these frames for ventilation control will require the connection of all straps. Four (4) straps on top and two (2) on each side must be completed.
- When removing curtain from the frames, each Velcro strap must be disconnected individually. Do not pull on the curtain to disconnect the Velcro strap. This may result in broken straps.
- 2-cone type frames and a curtain type ribbon with Velcro straps will be available for teams to use as ventilation structures. For an airtight structure, teams will be required to fasten both Velcro straps to (eyes) atop of each cone. When disassembling the structure, the curtain must be removed from both cones. For mapping purposes, the team will be required to use the symbol BC for the curtain and an X for the Frame.
- Working time for the problems will be stipulated each day. If teams do not complete problem in time allowed, they will be discounted as stipulated in rule 3 (A-card) of the mine rescue rules.
- 2 set of frames (One wood and one Cone type) and ventilation curtain will be located in the lockup area so teams can become familiar with erecting ventilation controls before they work the problem
- Anemometer Competition will be included as part of the mine rescue competition. After a team member is chosen to take the written examination, a team member will be chosen from the remaining five team members for the anemometer competition. The individuals who are chosen will be sequestered until their time to do the exercise. Team members will be judged based on the following criteria:
 1. *Proper Technique (Traverse the entry, Anemometer held properly and turned in right direction)*
 2. *Correct velocity (includes anemometer correction)*
 3. *Correct area*
 4. *Air quantity*
 5. *Must show judge anemometer reading*
 6. *Total Time to complete exercise*

V - 1 - 14
North Mains



No. 2
Ventilation
Shaft

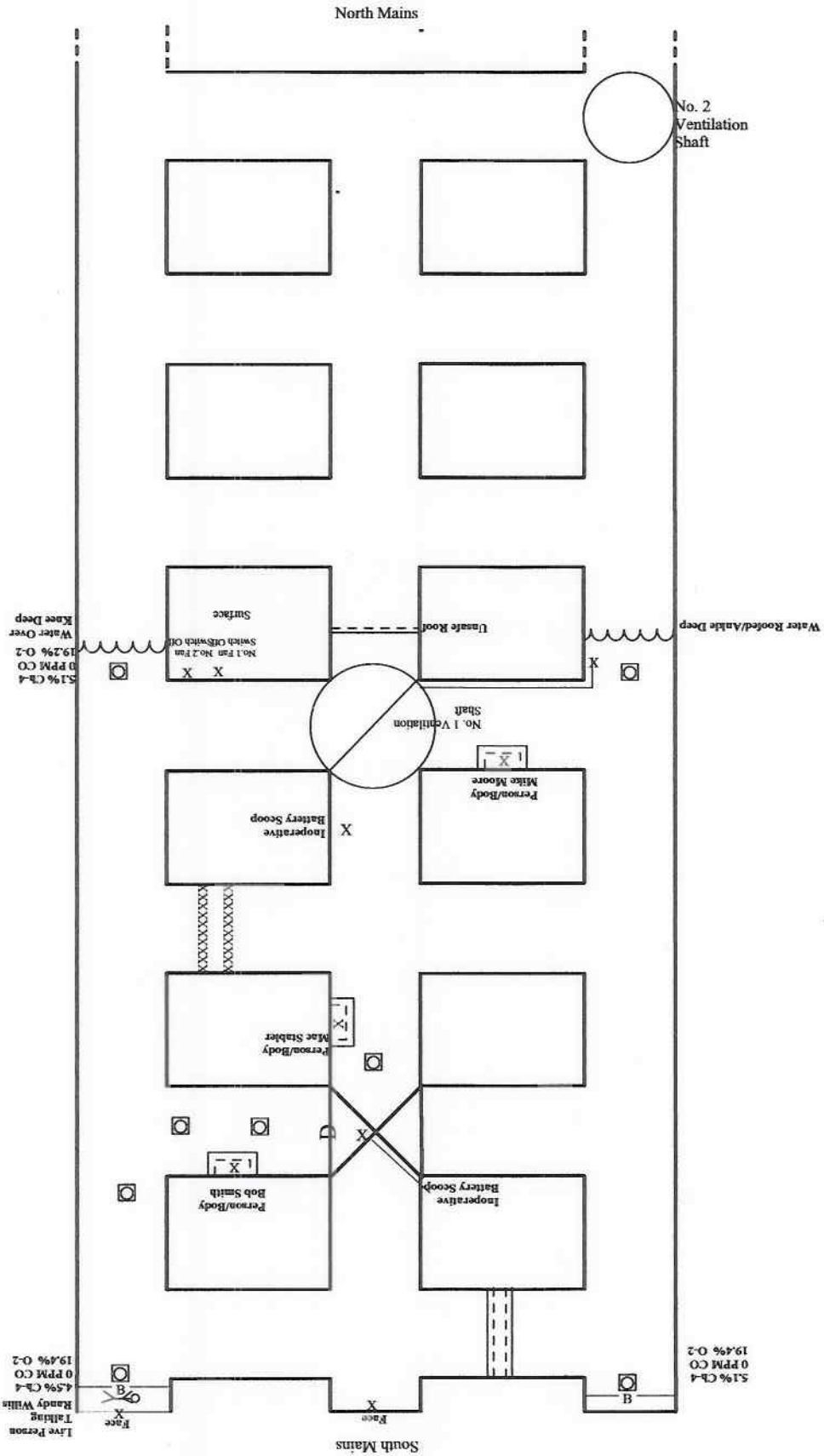


South Mains

Virginia Mining Institute

August 5, 2014

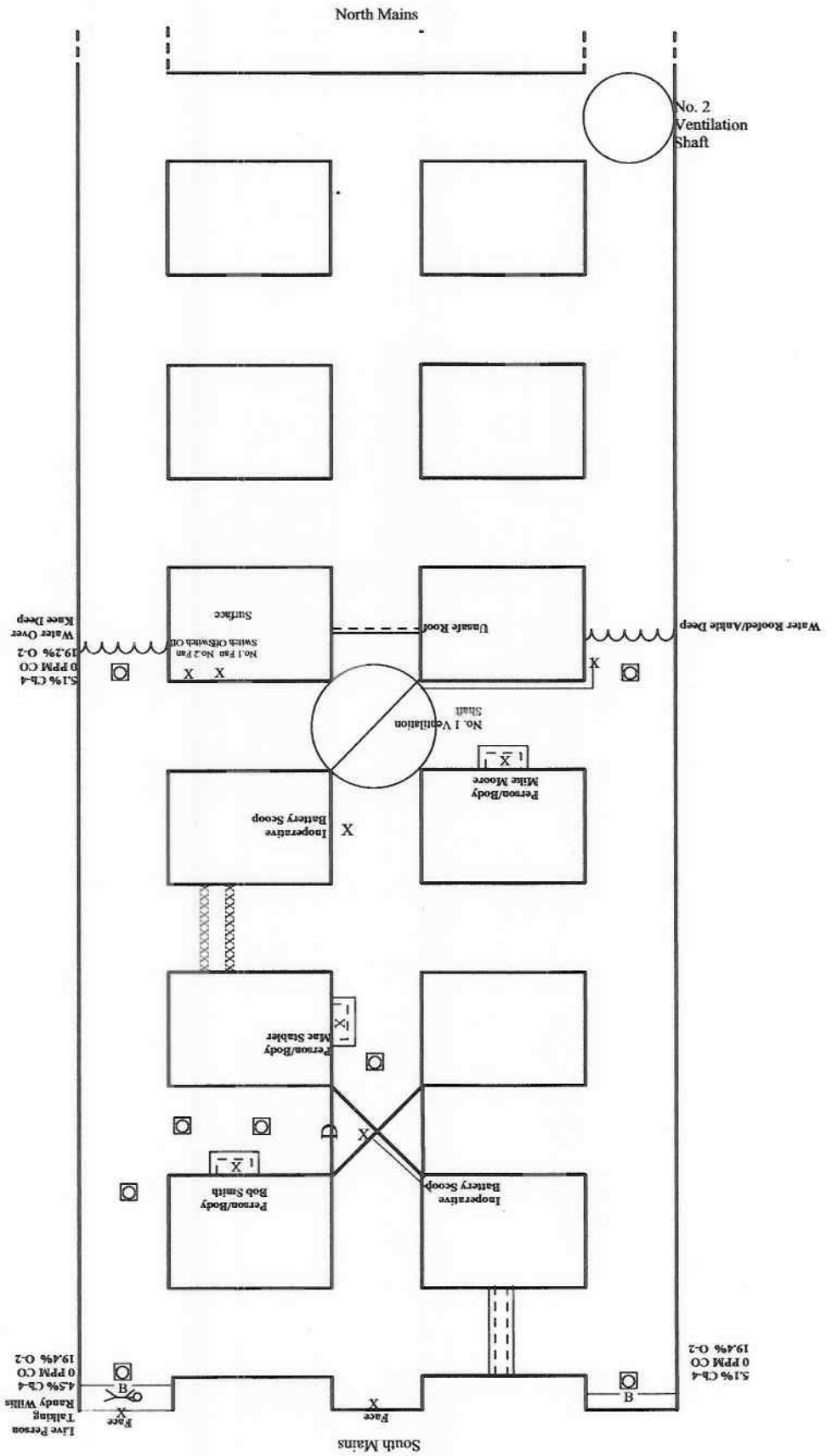
V -1- 14



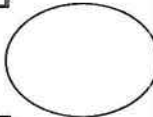
Virginia Mining Institute

August 5, 2014

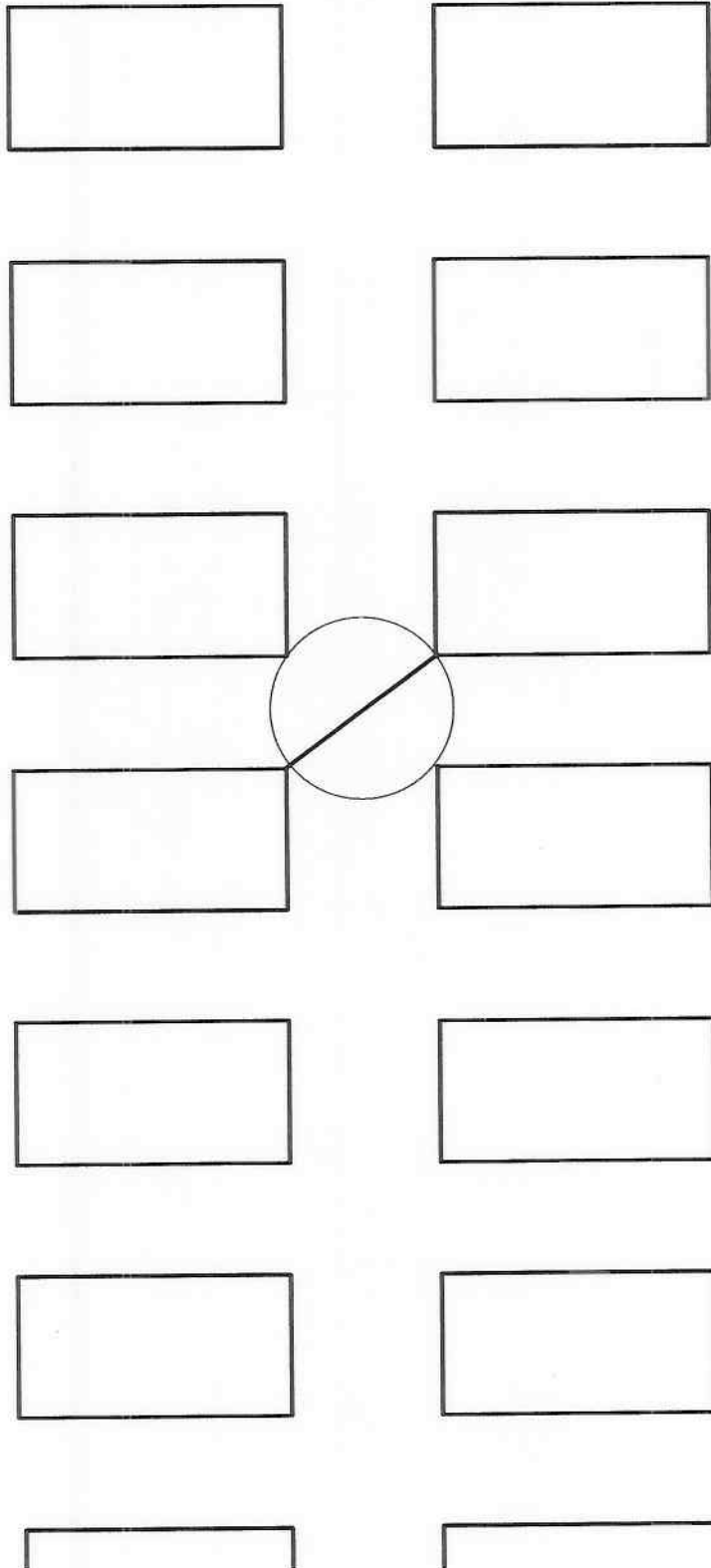
V -1- 14



V - 1 - 14
North Mains



No. 2
Ventilation
Shaft



Field No; _____

Team No: _____

Capt. Initials: _____

South Mains

Final Ventilation controls as left in Mine