

2013 Caryville Mine Manager Statement

I am Butch Jones, in charge of the rescue operation at the Volunteer Mine. Thank you for responding to our call for help.

These are your Judges _____ (Introduce them)

This afternoon, a 2 man service crew and a foreman were in the Level 1 North 5 work area, when power was lost and all ventilation was stopped. A thunder storm caused the power to be lost about 2:15 p.m. At around 2:25 p.m. Phillip Fulmer, foreman, left the 2 men and came to the surface to see why the power was off. At about 3:12 pm, Fulmer returned to the North 5 work area, he started smelling rotten eggs and became light headed. Fulmer was able to make it back to the surface before he lost consciousness. He has been transported to the hospital. Before Fulmer left in the ambulance he was able to tell us that Lane and Derick were working in the North 5 area and may be in bad air.

You are located at the fresh air base established by the previous mine rescue team. We believe this location is 3 to 4 crosscuts from the working places. All areas outby the fresh air base have been explored. The fan is running and cannot be reversed. The map posted on the wall in the mine office shows the air normally travels up the #3 entry/heading to the working area and out the #1 entry/heading. Also there may be a bore hole to the surface in this area, but we are not sure. We are trying to reach the engineer who has conducted the surveying for the mine. Electrical power has been restored to the surface and is available if needed.

There is a mine rescue team available for backup and another team on standby.

We are asking you to account for all missing persons; please bring all live persons to the Fresh Air Base; and explore all areas of the mine that can be safely accessed. Map all conditions found and any changes that you make.

We have a competent life line person to give and return signal (point this person out).

Your team will receive two projected maps of the area and the problem statement immediately after starting the time clock.

Thank you for your assistance and Good Luck!

**2013 Caryville
Mine Rescue Contest**

Problem/Written Instructions

**Account for all missing miners if it can be
done safely.**

**Explore all areas of the mine that can be
safely accessed and bring survivors to the
Fresh Air Base.**

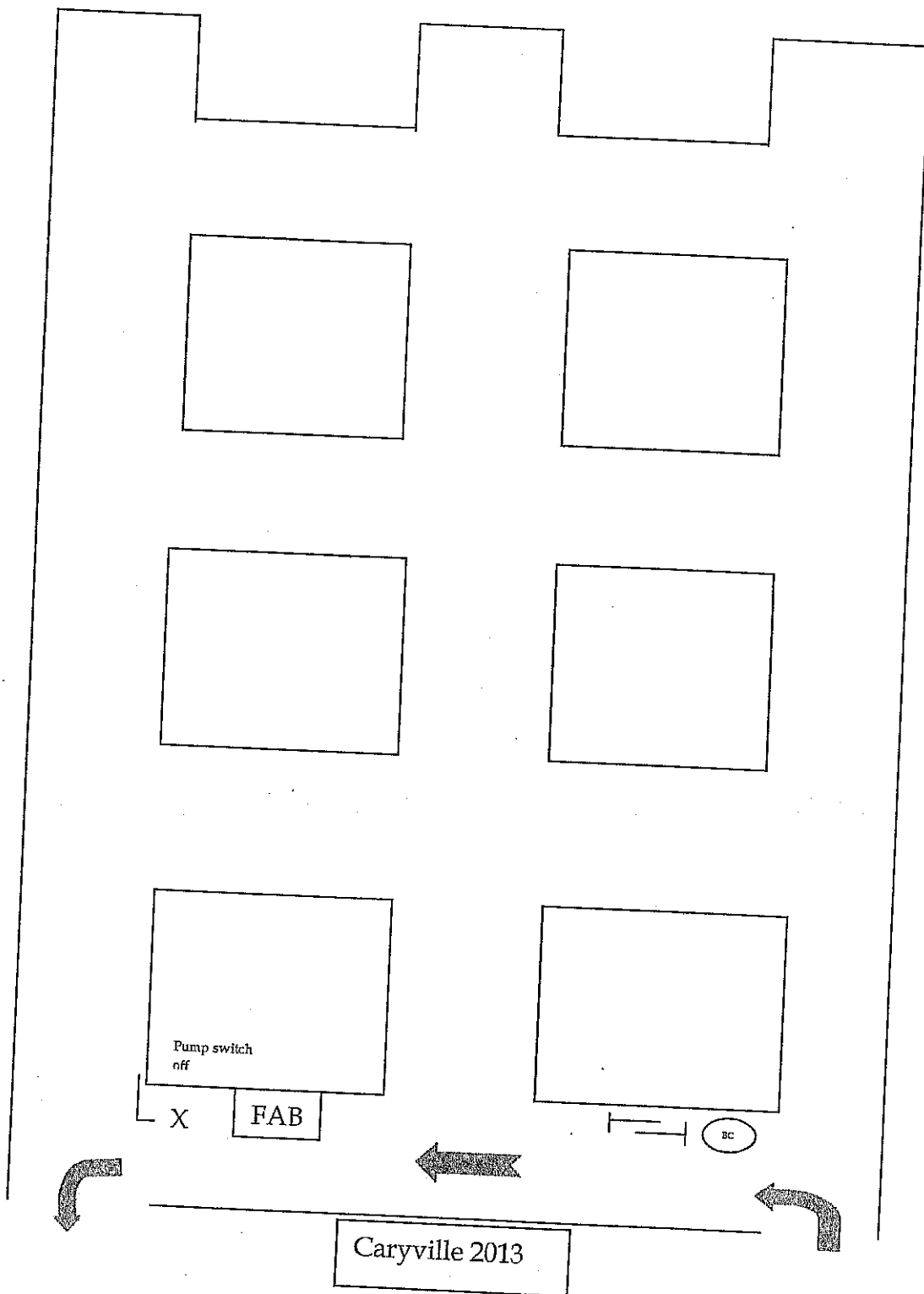
**Map all conditions found in the mine and
any changes you will make.**

The Fan cannot be stopped or reversed.

**Power can be restored to the Fresh Air
Base when requested.**

**You have 50 minutes to work the problem
(after the clock has been started).**

Thank You and Good Luck!



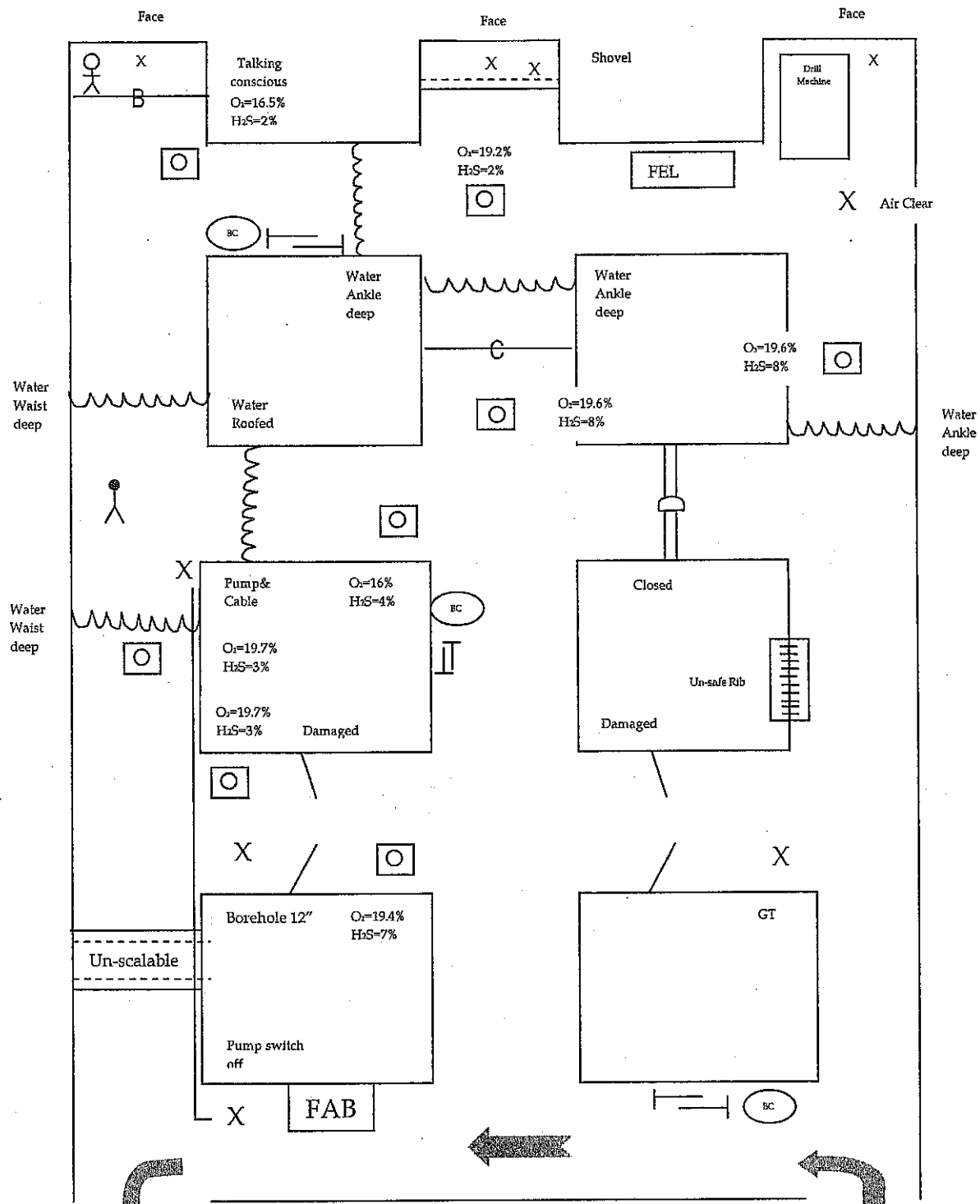
Pump switch
off

X

FAB

BC

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Field Map

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Team Exploration Solution

First Exploration:

Teams will examine all openings, conduct gas tests (GT), the captain will date & initial (D&I) the unsafe roof in the #1 entry/heading. The team will travel inby the fresh air base in the entry of their choice. This solution assumes that the teams will begin their exploration in the #2 entry. The team must count off before entering or leaving the mine. *If team does not "count off" dock them under Surface Judge #1, Item 10.*

Team Stop #1 (2A intersection)

The 50' apparatus check (AP) must be conducted at team stop #1. *If team does not make a 50' apparatus check, dock them under Underground Judge #1, Item 3.*

The team will take a gas test north, east, west of the intersection. The team will find an explosive mixture of gas on the west side of the intersection and must notify the FAB immediately. *If they don't notify the FAB, dock them under Underground Judge 1, Item 14. Team must tie across to the No. 2 or No. 3 entry. Dock them under Underground Judge 1, Item 11.*

Team Stop #2 (team can go to the 1A or 3A intersection)

The team will then tie across by advancing left or right through the damaged stoppings. We assume they will go to the 1A intersection. The required GT's, ground checks, D&I's, etc. will be made. Team will tie across to the 3A intersection and will find the gas testing station and test the equipment. The team must have the "hood" for the detector and put the gas on the detector. The captain will give the readings from the detector to the head judge who will write the readings down on the judge's map.

If team does not make the "hooded" gas check on the detector, dock them under Underground Judge #2, Item 4 for each incorrect reading. 15 docks X 4 = 60 docks.

Team Stop # 3

The team will then tie across by advancing right in the #3A intersection through the damaged stopping. Gas test will be made to the north and south and the team will tie back north. *If team does not tie across dock under Underground Judge #1, Item 11.*

Our map shows the team will retreat to #2 heading and advance to #B crosscut at the 2B intersection. The required GT's will be made as indicated on the map.

Team Stop # 4

The team will travel to the 2B intersection. The required GT's, D&I's and R&R's will be made as shown on the exploration map. Captain will find the roofed water to the west and the open door in the stopping to the east. Team will find an explosive mixture to the north and notify the FAB immediately. *If they don't notify the FAB, dock them under Underground Judge 1, Item 14. Team must tie across to the No. 2 or No. 3 entry. Dock them under Underground Judge 1, Item 11.*

Team Stop # 5

The team will travel thru the open door, to the 3B intersection. The required GT's and D&I and R&R are shown on the map. *If captain does not D&I where necessary, dock them under Underground Judge #1, Item 9. Ground Checks at the unsafe rib must be made, dock under Underground Judge #1, Item 8b. Gas tests where necessary Underground Judge #2, Item 1. Other discounts may apply.* Team must not enter the unsafe rib or dock them under team endangerment. *If team member goes into unsafe rib, dock them Underground Judge #1, item 10.*

Team Stop # 6

When the team reaches team stop #6, the team has not explored the 1 B intersection and therefore cannot go more than 3 feet in by the C crosscut. The captain can break the plan north of the intersection and a gas test can be made but no team member can go more than 3 feet north of the intersection. The team will go back and get these areas after the team ties back to the water waist deep in the #1 entry.

During Team stops #6 & #7 make sure the captain does not go in by (north) of the intersection more than 3 feet because of the 2X3 rule and the team has not tied back in the #1 entry/heading. *If captain or team member goes 3 feet beyond x-cut 2 without being tied in, dock under Underground Judge #1, Item 11.*

The team will then go east or west to continue exploration and tie behind.

Team Stop #7

When the team reaches team stop #7, the team has not explored the 1 B intersection yet and therefore cannot go more than 3 feet in by the C crosscut and the captain cannot reach the barricade as it is over 5 feet in by the intersection. The captain can break the plan north of the intersection and a gas test can be made but no team member can go more than 3 feet north of the intersection. The captain will break the plain south of the intersection and a GT will be made. The captain will explore south to the water waist deep and GT and DI the water as it stops his travel. The team will now retreat back to the barricade as they have tied in the c intersection.

If captain or team member goes 3 feet beyond x-cut 2 without being tied in, dock under Underground Judge #1, Item 11.

Team Stop #8

The captain can now contact the barricade and DI and GT. He will get the patient's message and the team must continue to explore as they must ventilate the low O2 in front of the barricade. They can not ventilate now!

Team Stop #9

The team will retreat to the 2C intersection and the captain will go up to the unsafe roof and DI, RR & GT. The team cannot go in by the unsafe roof. The captain will FPA the area. *If captain doesn't FPA dock underground Judge #1, Item 9.*

Team Stop #10

The team will advance into the 3C intersection and GTs will be made north and south of the intersection. The captain will DI, RR and GT the face area and travel south and tie back in the #3 entry. The team will find the explosive mixture and notify the FAB.

Exploration is complete. The team must pump the water to ventilate.

Dock under Underground Judge #1, Item 10b3

See Map for Ventilation change:

Build stoppings between 3B and 3C , and 2C and 3C to keep explosive mixture from going over equipment.

There are two ways to ventilate as shown by the two ventilation maps. (There may be additional ways)

The last build should be at the fresh air base and the team will request permission for a ventilation change from the Judges.

The team must inform the official in charge before making a ventilation change. *Underground Judge #2, Item12, for changing ventilation before informing the official in charge.*

The judges will turn over the gas placards which will show clear written on the back ahead of the team and the team must take gas test

at the locations because the ventilation has changed. Teams must recheck gases in areas they travel after a ventilation change.

Underground Judge #2, Item 1.

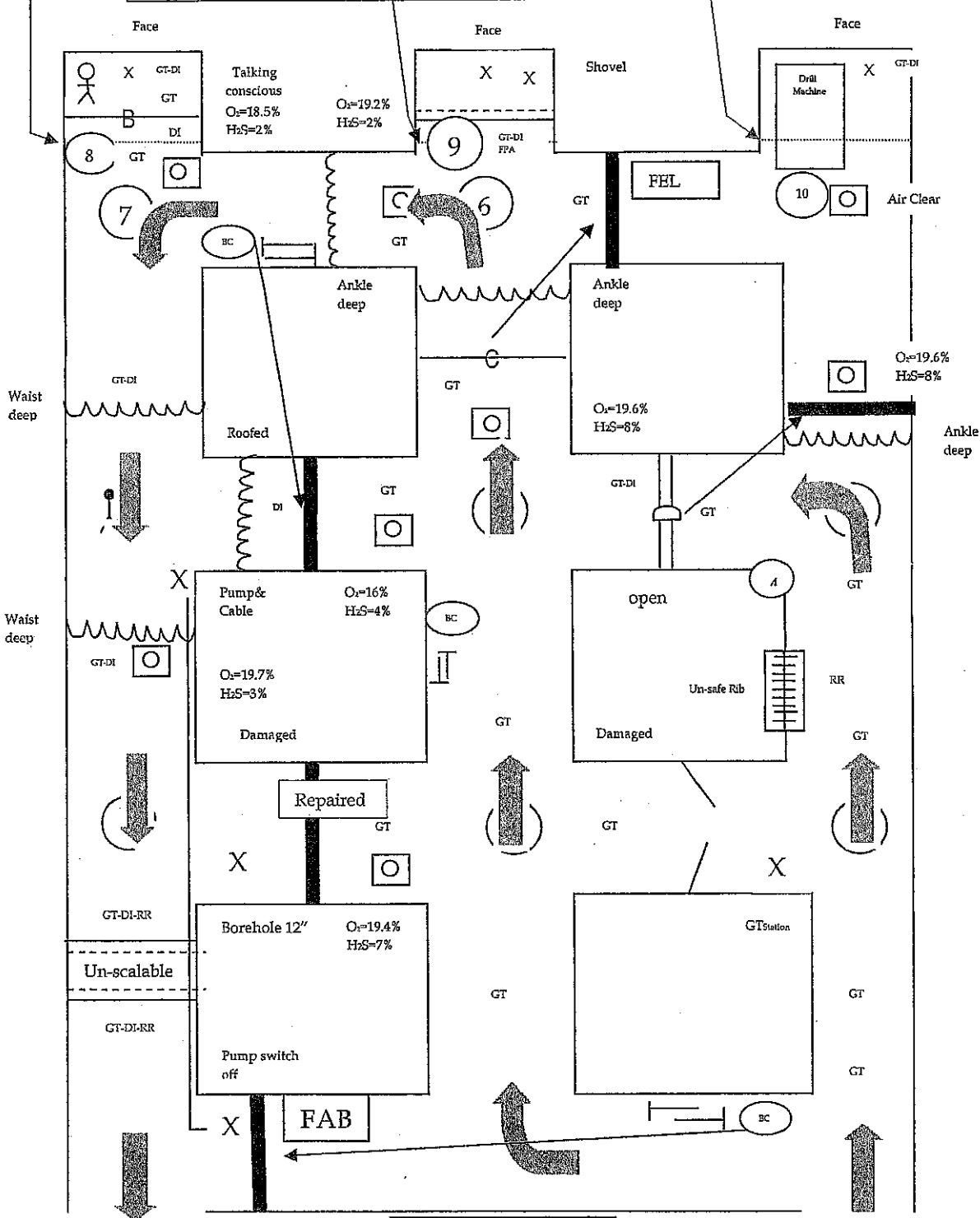
Teams will travel to the barricade and hang a wing curtain to clear the low O₂ in front of the barricade. Judges will turn the gas placard over in front of the barricade and the team will open the barricade and immediately take a gas test before entering. The captain will DI the location of the live patient and hand him off to a team member who will instruct him on lifeline pulls as the captain makes DI & GT at the face. The patient must be attended at all times and must keep hold of the lifeline on the way out to the FAB. At the FAB patient will be turned over to the judges.

Note: When the team is at the FAB, the mapman and the FAB must put pencils down so as not to write or compare the maps.

When the team is ready, the captain will stop the clock and the judges will take the maps and write the total problem time on the maps and have the captain sign his name that he agrees with the clock time.

Turn pump off

Cannot go over 3ft inby x-cut until lean ties across & behind



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Ventilate

