

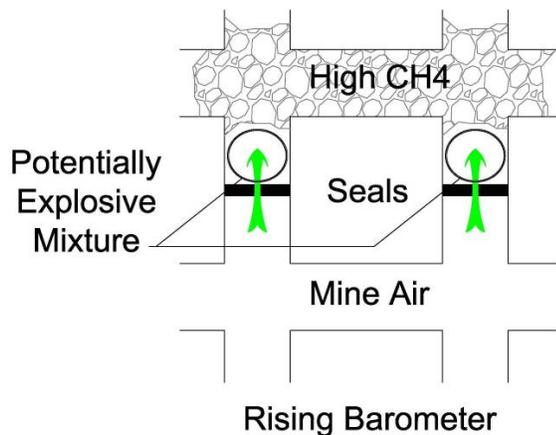


## U. S. Department of Labor MSHA's Accident Prevention Safety Idea



### Hazards with a Rising Barometer

A rising barometer is an indication of rising atmospheric pressure. The higher atmospheric pressure tends to reduce the methane liberation from the coal seam into the active mine atmosphere. Although methane liberation in the face area is reduced, other potentially hazardous conditions could be created. As the atmospheric pressure rises, air from the active area of the mine will tend to migrate



or “in-gas” towards sealed areas and into gobs. This introduces oxygen into those areas of the mine. A zone with explosive methane/air mixture could exist behind seals or on the fringes of the gob. Mines with coal that is prone to spontaneous combustion could experience elevated carbon monoxide levels from heating as coal reacts with oxygen in the air moving into gob areas. Also see information in a similar safety idea titled [Hazards with a Falling Barometer](#).

#### Best Practices

- Sample the atmosphere behind seals and check for explosive mixtures when they are in-gassing because of a rising barometer.
- Have a plan for inerting the atmosphere behind seals if explosive mixtures are present.
- Monitor the Atmospheric Monitoring System (AMS) for signs of elevated carbon monoxide concentrations indicating possible heating in the gob.
- Increase monitoring of gobs when the barometer rises.
- Establish the mine’s action levels for gases resulting from heating in gob areas.
- Maintain a recording barometer at the mine and check the trending of the barometric pressure each shift.
- Obtain a regional barometer forecast that will indicate expected changes and alert miners of the potential hazards associated with the changing barometric pressure.

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