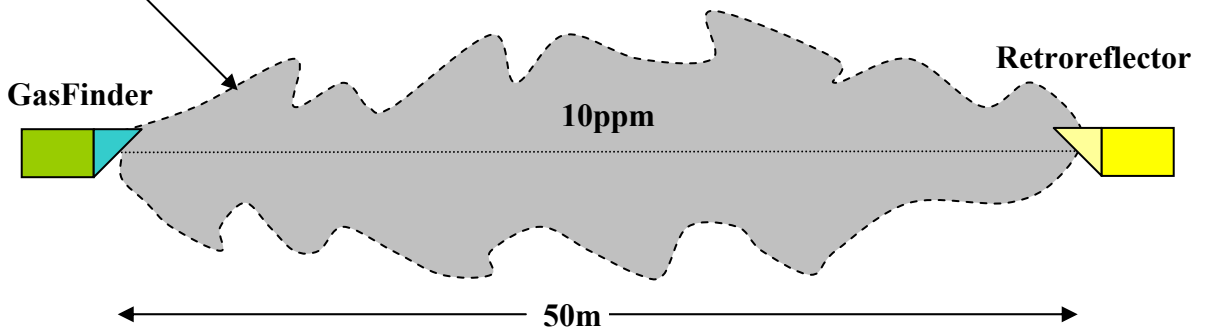


## Explanation of ppmm

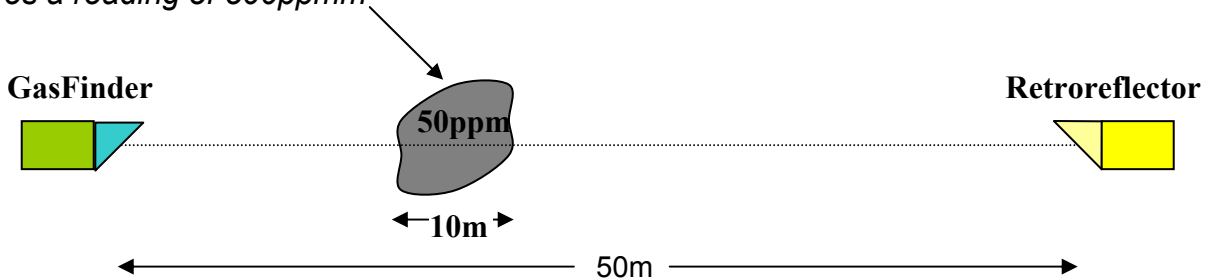
Gas concentration is measured in ppm, 'parts per million' by volume. If a room measuring 100m x 100m x 100m (1 million cubic metres) has 10 cubic metres of air replaced by a pure gas, then the gas concentration is expressed as 10ppm. A point sensor measures directly in ppm.

Open path monitors, like the **GasFinder2.0**, measure the total amount of a specific gas, for example HF, in the path of the laser beam between the transmitter unit and a reflector. This is a 'total path' measurement. The units are 'parts per million metres', or 'ppmm'.

*A uniform background concentration of 10 ppm over 50m gives a reading of 500 ppmm.*



*A concentrated cloud of 50 ppm, 10m in diameter, in a background of 0 ppm also gives a reading of 500ppmm*



When the 500 ppmm is divided by 50m the result is a value of 10 ppm, which is the 'path averaged' concentration.