

# The Sights, Smells, and Sounds of a Pipeline Leak



## The SIGHTS...

Not all pipeline incidents involve a fire. Natural Gas and Highly Volatile Liquids (HVL) are colorless and nearly invisible to the eye. Small leaks can be identified by looking for dying or discolored vegetation in a naturally green area. Hazardous liquids may produce puddles, pools, or a strong sheen (rainbow like) or film standing on a body of water. Heavier HVLs may form globules in water that lie on the bottom or "roll" with the current.

An HVL leak may be identified by a fog-like vapor cloud in areas of high humidity. Natural gas is colorless but, blowing dirt around a pipeline area may be observed, or vapor and "ground frosting" may be visible at high pressures, regardless of temperature. Liquid pipeline leaks may create soft or spongy ground conditions in the area around the leak.

Other ways first responders may recognize a leak include: water bubbling up or standing in an unusual area, a mist or vapor cloud, a powerful fire or explosion with dense smoke plumes, or an area of petroleum stained ground.



## The SMELLS...

An unusual smell, petroleum or gaseous odor will sometime accompany pipeline leaks. Natural Gas, Propane, and HVLs are colorless, tasteless and odorless unless odorants, such as Methyl Mercaptan (which smells like rotten eggs), are added.

Most HVLs contain a slight hydro-carbon or pungent odor. Most are nontoxic; however, products such as ammonia are considered highly toxic chemicals and can burn the senses when it seeks out moisture (eyes, nose or lungs). Most HVLs evaporate rapidly once out of the pipeline. If inhaled, the evaporating HVLs may cause dizziness or asphyxiation without warning. If you can smell the product, you are also in danger of being caught in a flash should the vapors reach their Lower Explosive Limit(s) (LEL).



## The SOUNDS...

The volume of a pipeline leak can range from a quiet hissing to a loud roar, depending on the size and nature of the leak. Underground leaks may create a "percolating" or "gurgling" type noise. If you hear such sounds, back out quickly as these types of leaks may escalate quickly.

**Stay Uphill and Upwind!**  
**Deny Entry into The Spill or Leak Area.**



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**Pipeline and Hazardous Materials  
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