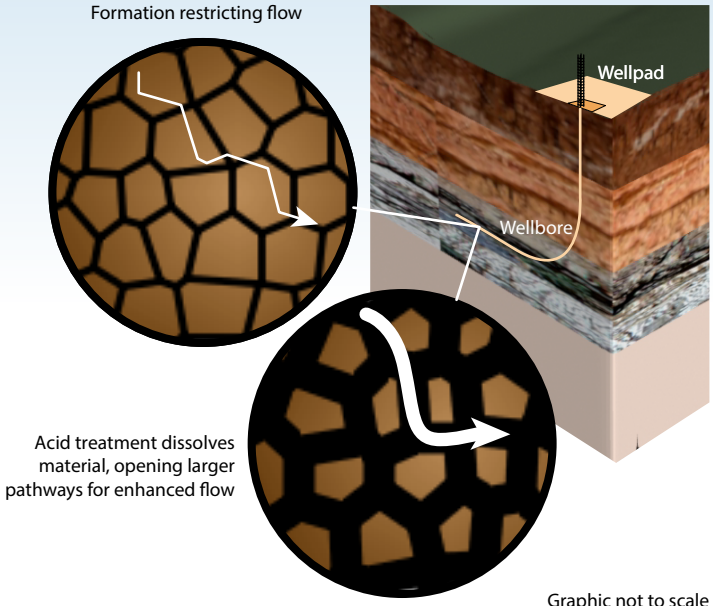
ENERGY IN DEPTH FLORIDA

What You Should Know about Acid Treatment in Florida



The Process

Diluted acid is introduced into the steel pipe of a water/oil/gas well or in certain instances a geologic formation. These materials generally include the following:

- Hydrochloric acid – commonly used in swimming pools to maintain PH levels
- Acetic acid – another name for vinegar
- Formic acid – typically found in cleaning products

Once put to work, these materials remove scale build-up inside and near the bottom of the steel piping in the wellbore to improve flow. In certain instances, they can also be used to re-open existing flow channels that have blocked up over time or to open new flow channels in the geological formation.

Acid Treatment

This process is used in Florida by water utilities and water districts as well as by the oil and gas industry.

In both instances, acid treatment is used to restore or improve a well's productivity by removing scale build-up such as calcium carbonate – commonly found in your shower head or faucets – inside the well's steel pipe.

In the oil and gas industry, the same treatment may also be used in limestone or other hard rock formations to re-open existing flow channels that have blocked up over time or to open new flow channels.

Oil and Gas Industry

The use of chemicals or acid treatment has been part of the oil and gas industry since the 1930s and is, to this day, one of the most widely used methods for improving well productivity.

In Florida, chemicals and acids are used by the oil and gas industry to clean wells by removing scale buildup and also to improve flow by removing residue from the formation as a result of the drilling process. This process occurs at much greater depths (generally, 10,000 – 15,000 feet below the surface) than does the use of acids by water utilities and districts to clean potable water wells (generally, 50 – 1000 feet below the surface). And the vast distance between these two depths is separated by layers of impenetrable rock.

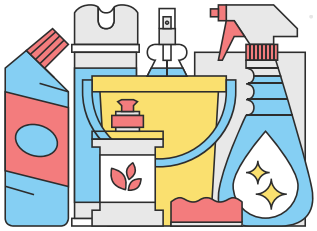
ACID TREATMENT IS SAFE

Acid treatment is safe as long as the materials are properly handled and operators use industry best practices. The regulatory framework governing the use of acid in the oil and gas industry is well-developed and mature, as are the operational and safety practices used by industry service providers.

All of us encounter many of the same chemicals used in this safe treatment in our everyday lives.

Citric Acid: Food and soda additive

Guar gum: Food ingredient



Acetic Acid: Vinegar

Formic Acid: Toilet bowl cleaner

Hydrochloric Acid: Found in stomach acid and used in swimming pools

Isopropyl Alcohol: Disinfectant