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Injecting Liquids and Gases Deep Underground

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Injecting Liquids and Gases Deep Underground



Stephen F. Greb

Every year, thousands of wells are drilled into underground reservoirs in search of water, oil, and natural gas. The gases and fluids are trapped inside tiny pores and cracks in underground reservoirs.

Underground Injection

Sometimes natural salt water (brine) is produced with petroleum and natural gas. The fuels are collected and used, but the brine needs to be disposed of. Likewise, some manufacturing processes produce waste fluids and gases that need to be disposed of. One method of disposal that helps ensure that the produced fluids and gases don't contaminate the air or groundwater is to inject the waste fluids and gases into deep, subsurface reservoirs.

Underground injection of fluids or gases is strictly regulated and monitored to ensure safety and protect the environment, especially near-surface, underground drinking-water supplies.

The U.S. Department of the Interior, state governments, and industries are currently testing small-scale carbon dioxide injections deep underground in different parts of the United States.

Injecting manmade carbon dioxide into deep, underground reservoirs with demonstrated seals or confining intervals may be one way to curb greenhouse gas emissions.

