

At Hess, we are committed to protecting water quality in the communities where we operate. That's why, from baseline testing to pitless drilling, we use methods and precautions that minimize our impact on the environment.

## **PRE-DRILLING** 1 **ENVIRONMENTAL & SOCIAL** IMPACT ASSESSMENT

Before drilling, we learn about the geology, infrastructure, and local regulations. Each well has a tailored plan that considers water sourcing. We evaluate the viability of options such as saline water and waste water.

A series of baseline water quality tests are taken to ensure the protection of local groundwater throughout operations.

### **ABOVE GROUND** 2 ASSURANCE

Through rigorous operational procedures, we protect ground water quality, minimize our surface footprint and reduce waste. Wherever possible, our wells are drilled using a closed-loop fluid containment system that reduces the need for waste water open pits and provides environmental benefits.



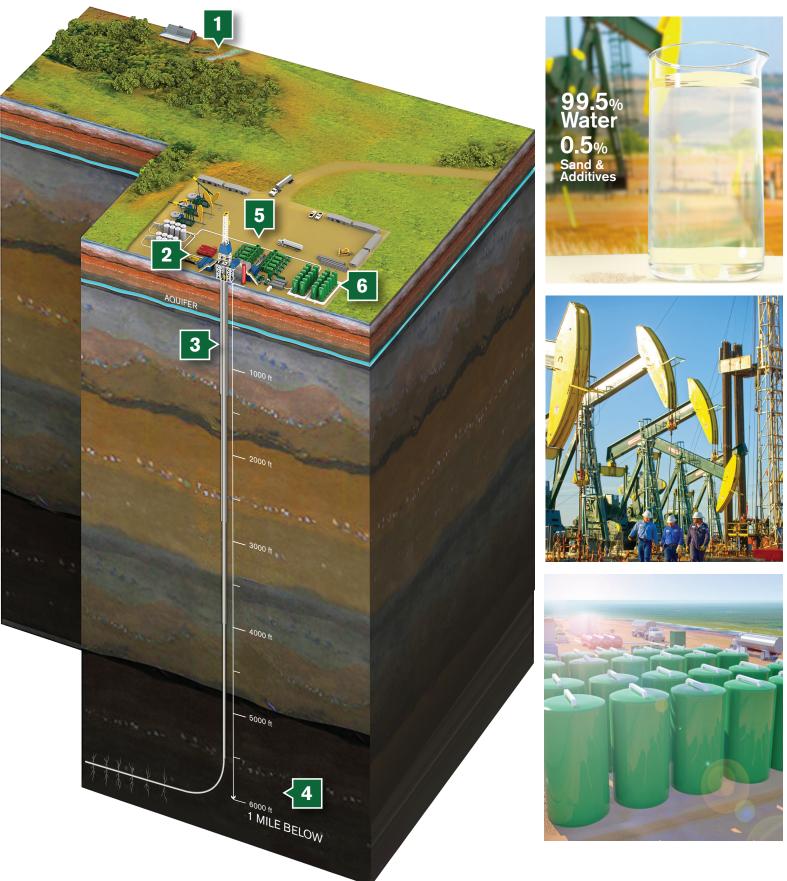
We are committed to preserving water quality through responsible drilling and completion practices and appropriate sourcing, storage, and disposal of water used in the drilling process. Wells are lined with multiple layers of steel pipe and encased in cement to isolate fresh water aquifers, preventing fluids or gas in the well from seeping into ground water.

Horizontal drilling typically begins 6,000 to 10,000 feet below surface. This means that water supplies and the hydrocarbon extraction are separated by thousands of feet of impermeable rock.









#### COMPLETION 4

Once a well has been drilled. hydraulic fracturing fluids are injected 6,000 to 10,000 feet or more under the ground. Fracturing fluids used in the process are made up of more than 99.5 percent water and sand.



# PRODUCTION

When a well starts producing, a mixture of water and hydrocarbons flows to the surface. This mixture contains about 10-20 percent of the water used in the hydraulic fracturing process.

#### 6 WATER DISPOSAL

Hess seeks to minimize the use of fresh water for hydraulic fracturing through alternative water sources.