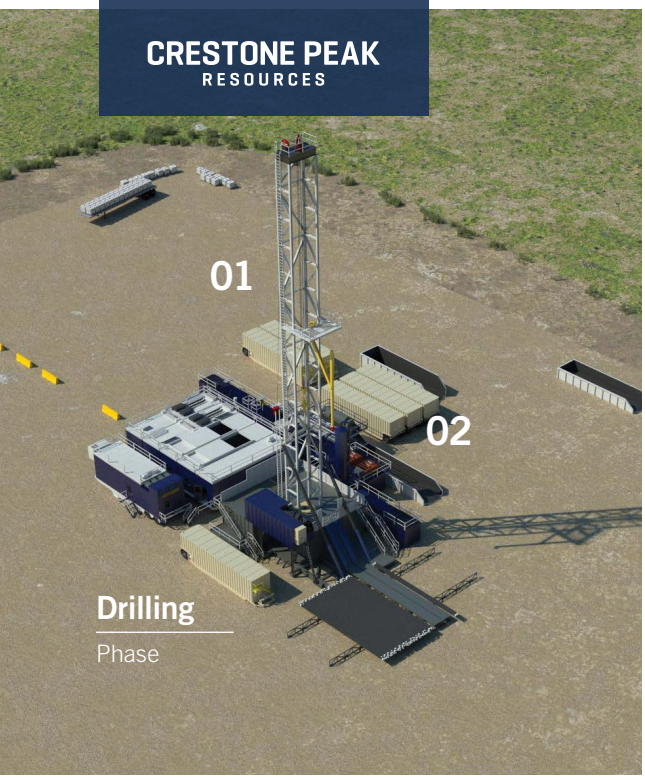
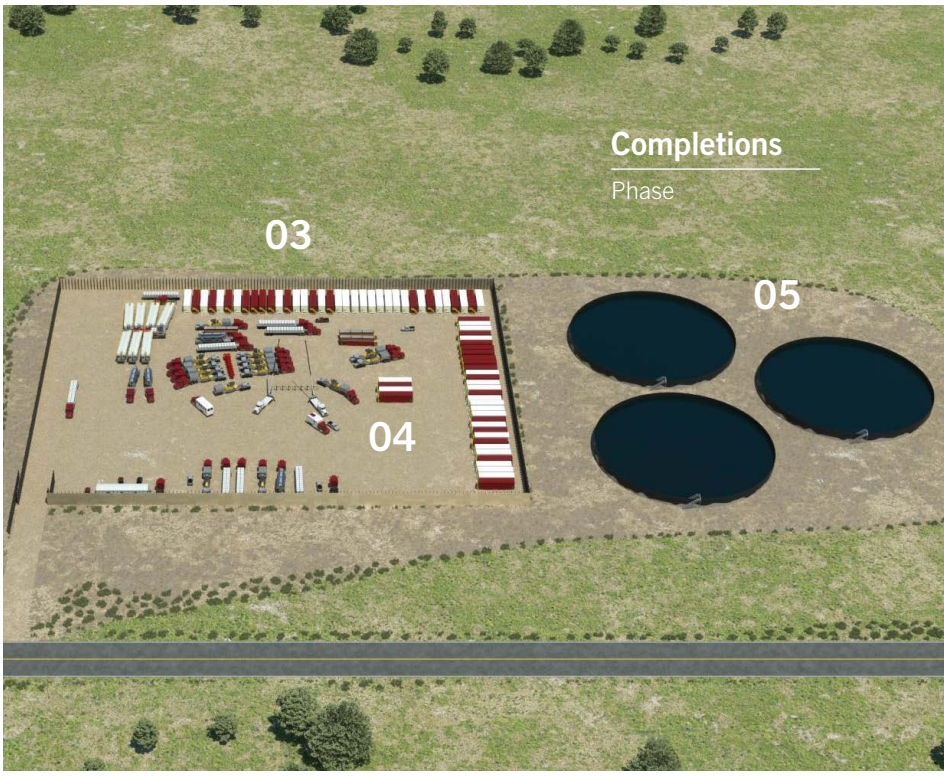
Water

USING RESOURCES RESPONSIBLY





01 **Wellbore Lubricant**
Water is used to cool and lubricate the drill.

02 **Mud Tanks and Shale Shakers**
Hold the mud and shale that is removed from the well during drilling.

03 **Frac Tanks:**
Know as working tanks, hold fresh water for use during completions. (fracking)

04 **Produced Water Storage Tanks**
~4-6 temporary produced water tanks

05 **Temporary Fresh Water Storage**
Holds fresh water ONLY for use during completions.

Water Use

Water is a critical resource and Crestone Peak Resources takes responsibility for the water we use seriously. Water safety and conservation are priorities during our operations – from drilling a new well, to producing natural gas or oil, to the treatment and disposal of water.

Each phase of our operations has unique water requirements and challenges, requiring tailored approaches to water safety and conservation. We adapt our water management approach based on geological factors, local water resources, stakeholder feedback and our operational needs. While we have measures in place to ensure responsible water management, we are committed to continuously improving our processes.

Drilling

During drilling operations, a mixture of clay and water is used to carry rock chips or cuttings to the surface, cool and lubricate the drill bit, and maintain pressure in the wellbore.

Completions

During completion operations, which include hydraulic fracturing, a combination of water, sand, and a small amount of chemical additives is injected at high pressure through the well to the target rock formation deep underground. This injected fluid creates small cracks in the rock, allowing natural gas and oil to flow up to the surface.

Conserve, Recycle, Reuse

Wherever possible, water from our operations is reused or recycled. Where it cannot be recycled, water is disposed of responsibly. Unusable and/or excess water is transported and disposed of in tightly regulated and licensed oil field disposal wells through a process called deep-well injection.

Where Do We Get Our Water?

There are three primary sources of water used in developing natural gas and oil: leased water rights, municipal sources, and recycling. There is no universal solution for our water needs and we employ a variety of water sourcing strategies depending on the characteristics of each resource play.

Recycled Water

Sources of recycled/reused water can include municipal waste water or produced water. Produced water is found underground with natural gas and oil and often has the same chemical characteristics of the producing formation. Produced water might also include water injected into the formation during hydraulic fracturing and may be referred to as flow back. While this water is unsuitable for use during drilling, it can be used in hydraulic fracturing operations if treated properly.

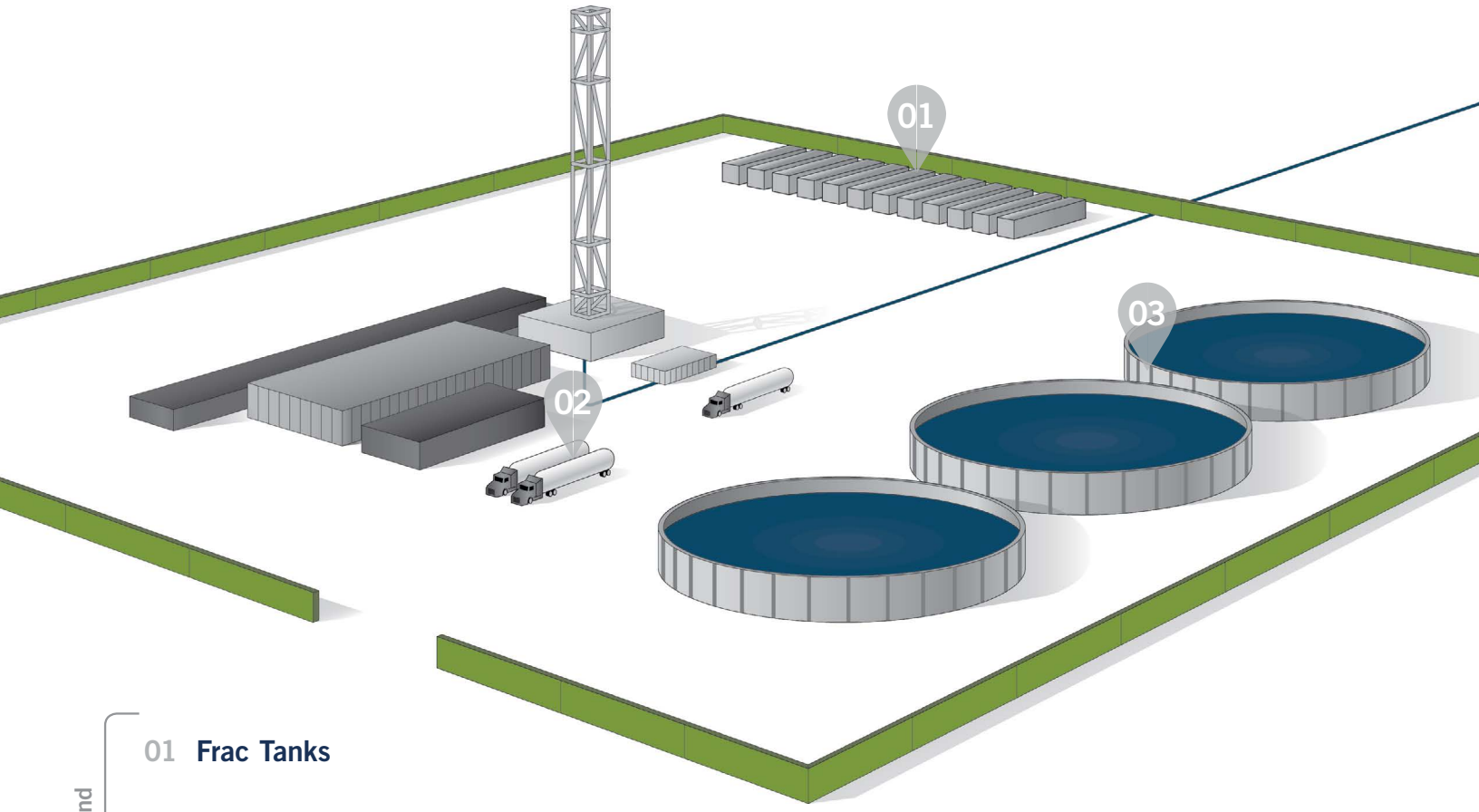
How Much Water is Used?

Horizontal wells can require up to 5,000,000 gallons of water depending on the lateral length and number of hydraulic fracturing stages utilized. Completed vertical wells use much less water, however, horizontal wells yield more energy, making them more water-efficient in the long run.

These may sound like large quantities. So to put them into perspective, 5,000,000 gallons of water is slightly less than the water used in 37 days at an average golf course, one season tending to 5 acres of corn, or a day's water use at one coal-fired plant operating 12 hours during peak loads*.

*Source: COGA Fast Fact Sheet

Moving and Storing Water Safely



Legend

01 **Frac Tanks**

02 **Water Trucks**

03 **Temporary Fresh Water Storage**

Reduced Trucking

Whenever and wherever possible, we seek to identify nearby water resources for use during drilling and completions. This practice dramatically reduces truck traffic associated with hauling necessary water to location.

Closed-loop Fluid Handling

Our approach to storing water and other fluid varies, depending on the location and requirements of each well. In most of our operations, we use closed-loop fluid handling systems. These systems keep drilling and hydraulic fracturing fluids within a series of pipes and tanks throughout the entire fluid storage process.

Water Disposal

In most cases, produced unusable and/or excess water is transported and disposed of in tightly regulated and licensed oil disposal wells though a process called deep-well injection. We may also dispose of water at industrial disposal facilities in compliance with applicable state regulations.

CRESTONE PEAK
RESOURCES

Protecting Groundwater

WELLBORE CONSTRUCTION

Steel Casing System

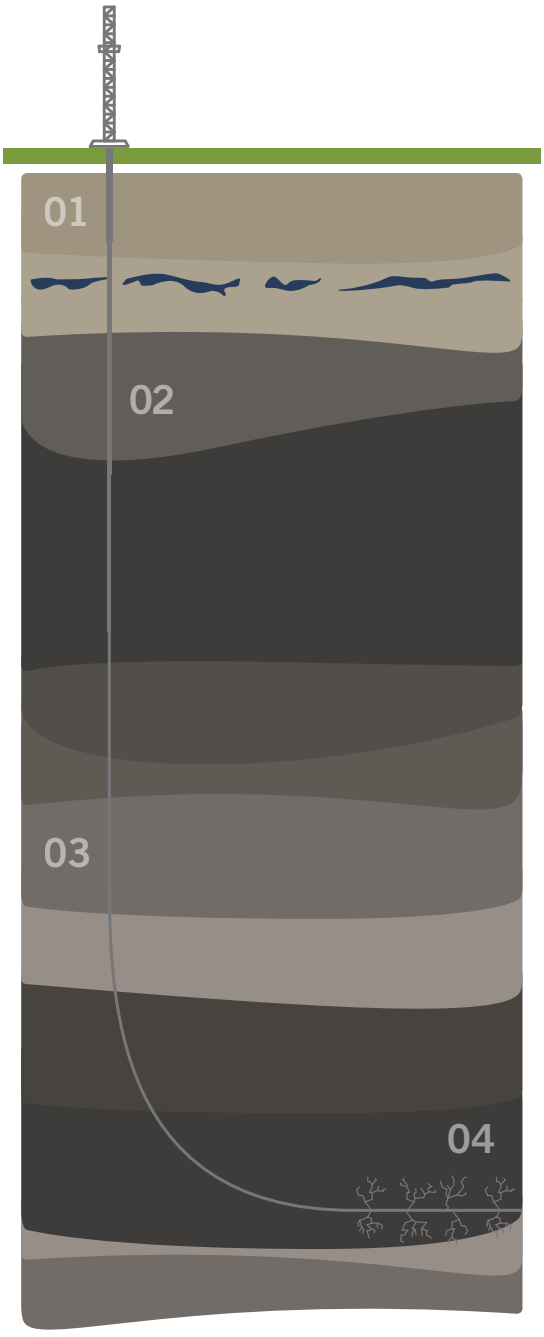
Before any natural gas or oil is produced from a well, a multi layered barrier of steel and concrete is constructed inside the wellbore to seal it off from freshwater aquifers. After the surface hole is drilled below any potable water zone, the drill string is removed and surface casing is run down the length of the wellbore. The surface casing must then be set and cemented. We center the casing in the wellbore with centralizers. Then we pump cement down the inside of the casing, to the bottom. Once cement reaches the bottom of the casing, it circulates up around the outside to seal the space between the surface pipe and the wellbore, back up to the surface. Surface casing protects and isolates the fresh water aquifer from the wellbore.

01
20 inch Conductor Steel Casing

02
8 ⅝ inch Surface Steel Casing

03
7 inch Intermediate Steel Casing

04
4 ½ inch Production Steel Casing



Wellbore Design

Groundwater protection is of utmost importance to Crestone operations, and it starts with an effective wellbore design and the proper execution of wellbore construction procedures. Every natural gas or oil well has an engineered steel casing system that is cemented externally to prevent any fluids from moving from the wellbore to groundwater aquifers.

A casing and cementing program is designed for all types of drilling that we employ–directional, vertical, and horizontal. Proper wellbore design, with layers of protective casing, ensures groundwater is protected throughout the development process–and throughout the life of the well.