

Wyoming Oil and Gas Conservation Commission

Orphan Well Program

When an oil and gas well on state or fee land is no longer economically productive, the owner of that well is required by state regulations to plug and abandon the well. Over the years there have been times when wells were orphaned by their owners mostly through bankruptcy and the responsibility to safely plug and reclaim them becomes the responsibility of the Wyoming Oil and Gas Conservation Commission (WOGCC) as outlined in the agency's [Rules and Regulations, Chapter 3, Section 16](#).

Since 2014, Wyoming has had several thousand coal bed methane (CBM) wells on state and private leases orphaned by their owners due to declining gas prices. To address the issue, the WOGCC initiated an aggressive plan to plug and abandon the orphaned wells.

Frequently Asked Questions

What is an orphan well? Wells for which the Commission has taken enforcement action to revoke bonds are considered Orphan Wells. These are wells for which the agency is unable to require the responsible party (Owner or Operator) to plug and abandon them and rehabilitate the surface because the responsible party no longer operates in the state, is bankrupt, or is out-of-business. No other entity has expressed interest in operating the well.

Why does a well need to be plugged and abandoned? Wells that are no longer managed according to state requirements need to be plugged to ensure safety and health for both the public and the environment. Correctly plugging a well according to state regulations prevents potential discharge of water, oil or gas from the well bore and ensures these fluids stay within their proper formations. When a well is plugged and the area is reclaimed, the land is brought back to its original state allowing for agriculture and other uses of the land after a well is no longer active.

How many wells have been orphaned in Wyoming? Since 2014, there have been approximately 5,771 wells orphaned. (Prior to 2014, there were approximately 500 orphaned wells documented over a twenty year period. These have all been plugged and abandoned.)

How many have been plugged since 2014? To date, the WOGCC has removed from the orphan well list approximately 2,377 orphaned wells on state and private lands with 142 of those converted to water wells for nearby ranchers and 20 mined through.

How long does it take to plug a well? To simply plug a CBM well, it would take about two to three days. However, there are other additional and lengthy steps that are necessary to plug and abandon a well site according to state stipulations. These would include locating and mapping the well and identifying and contacting the surface owner(s) to obtain access to the site. Additionally, as weather permits, the final step is reclaiming and re-contouring the surface to bring the well site back to its original state. Factors, such as weather, wildlife stipulations and equipment issues can all cause delays.

How much does it cost to plug and abandon an orphan well? Estimations for each CBM well site is about \$5,000 to \$7,000 per well.

Who pays for the orphan well program? State regulations require oil and gas operators provide bonds in order to operate in the state of Wyoming. These include blanket bonds and idle well bonds. Additionally, operators must pay a conservation tax on their production to the WOGCC. Both the conservation tax and bonds fund the orphan well program as described on the WOGCC [website](#).

Who plugs the orphan wells in Wyoming? The WOGCC is responsible for state and fee orphan wells. The WOGCC solicits bids from certified and experienced contractors. Once the contractors are selected, the WOGCC oversees all phases of the work.

Are there state rules that govern how a well should be plugged? Yes. A well must be plugged and abandoned as outlined in Chapter 3 Section 18 of the WOGCC's rules to ensure it is properly and safely plugged.

How is a well plugged and abandoned? The process for a typical CBM well with casing is outlined below:

- The first step, and one that requires a great deal of time, is locating and mapping the orphaned wells. The WOGCC collects information on each well and then builds a map with their locations.
- Next, the landowners are identified in order to obtain access on their property. WOGCC will also meet with landowners to establish roads and areas to store removed equipment.
- Once the project is put together, contractors are selected based on their reviewed bids.
- At each well site, old orphaned equipment is removed. This can include wellheads, pipes, electrical wiring and poles, voltage boxes, instruments and storage facilities as well as tubing downhole.
- A mechanical bridge plug is then placed down hole to seal the bottom of the wellbore.
- Once the mechanical bridge plug is set down hole, 100 feet of cement, that is designed in compliance with state regulations, is poured every 750 feet to surface to plug the well.
- The well casing is then cut off at least 3 feet below the surface and a plate with well designation is permanently welded onto the top of the casing stub.
- The final step is surface reclamation. When weather is appropriate, the well site is re-contoured and seeded to its original state or to landowner's specs.

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"WOGCC has a proud history of regulating the oil and gas industry within the state of Wyoming and is accountable for the responsible and efficient development of the state's oil and gas resources while protecting public health and the environment."

-WOGCC Director Mark Watson