

# Cellar Tech helps bring more oil and gas to market

**An Appalachia operator enhances return to pad drilling and avoids losing 25 billion cubic feet equivalent of natural gas (4.2 million barrels of oil) in 2022**

## Background

Not all return-to-pad drilling projects are created equal, but almost all of them require extensive planning, logistics, additional cost, and potentially lost production of existing wells. Typically, producing wells must be shut in during a rig return to drill new wells. For wells that are located far enough away from the rig, it's a slightly simpler process, but in cases where the existing wells are situated closer to the return-to-pad rig, then more steps must be taken. A workover rig is called out, the existing production tree is removed, and tubing pulled to set bridge plugs. These processes and the time required to drill new wells means an upward of 3- 6 months that previously producing wells will no longer be producing. For the existing wells, oil & gas is stopped from flowing to market for as long as the rig and completions crews are onsite. Once the new wells are drilled and completed, complications often arise with the operations required to return the previous wells to production, resulting in further cost and volume impacts. These are the challenges and dangers when a well pad is not developed in a fashion to be able to handle future simultaneous operations (SIMOPs).

## Solution

An operator in the Appalachia region would have potentially had to experience all of these challenges had they not worked with NOV Cellar Tech to have a fully below grade wellhead containment cellar that allows their wells to remain online during a rig return for new wells. Because the wellhead and production tree are below grade, it no longer interferes with the planning, movement, and setup of a rig to return to pad. Our proprietary well cellar system allowed the operator to conduct multiple operations and activities simultaneously (SIMOPs) without taking their existing wells offline. This means there was no need for the operator to incur additional cost of shutting in wells, calling in a work over rig, losing months of production, and experiencing complications of the operations required to return the wells to production. The system incorporates a horizontal production tree allowing fully below grade, covered, production through tubing.

## Results

An Appalachian operator utilized Cellar Tech below grade systems to produce an additional 25 BCFE of natural gas and oil condensate from 20+ well pads with below grade cellar products installed. Advancing production from existing wells improves well economics, avoids complex and unnecessary operations, and improves corporate financial metrics.

## Case study facts

**Location:** West Virginia – Appalachia Region

**Customer:** Independent Operator

**Time frame:** Operating Year 2022

### Results:

- Avoid shut in of producing wells
- Below grade well heads enable simultaneous operations (SIMOPs), which reduces NPT and unnecessary well work
- Additional 25 BCFE of natural gas and oil condensate from 20+ well pads

