

# Effective stimulation and millout operations achieved with Packers Plus TREX cemented completion system

[United States, Marmaton](#)

[PrimeSET Liner Hanger](#), [TREX System](#), [Lightning Composite Plug](#)

Packers Plus worked with an operator in the Marmaton formation to provide short length composite plugs for a cemented completion system. A total of 19 stages were successfully stimulated that included plug-and-perf operations with TREX™ Lightning Composite Plugs. Pressure integrity was verified through the Toe-XT™ Hydraulic Sleeve at the first stage. The short length of the plugs enabled efficient deployment and millout operations, saving time and reducing risk of stuck debris, while bringing the well online faster.

## Challenge

An operator working in the Marmaton was looking to improve the efficiency of their cemented liner operations. Millout operations to produce a full inside diameter in the casing in a plug-and-perf system introduces operational risk if:

- (i) large size cuttings are produced during milling
- (ii) there is debris buildup inside the casing that has not been swept to surface during flowback



## Solution

The short length of the Packers Plus TREX Lightning Composite Plugs (13.5-in.) used by the operator facilitated plug deployment and millout operations.

The operator used Lightning Composite Plugs to stimulate 18 stages in their lateral of 4,342 ft, along with a Toe-XT Hydraulic Sleeve for the first stage and a PrimeSET™ Liner Hanger to anchor the system at the heel of the well. The Toe-XT sleeve was used to pressure test the casing once prior to stimulation—the dual pressure cycle of the Toe-XT sleeve enables maximum pressure testing and low pressure opening for stimulation. The casing above the toe sleeve was perforated and treated together as the first stage. The plugs for the subsequent stages were deployed and set using wireline, followed by a total of 60 perforations per stage.

A ball pumped from surface to land in the plug was used to isolate and stimulate each stage.



## Results

After successfully running in the system and setting the PrimeSET Liner Hanger, the well was pressure tested to 10,000 psi to verify casing integrity. The well was successfully stimulated with nearly 100,000 bbls of fluid pumped and 4 million lbs of proppant placed, despite the higher than anticipated treating pressures encountered. All 18 plugs were milled out with an average millout time of 2.67 minutes, with favorably sized cuttings seen on surface. The operator was impressed with the results and is planning to complete more of its wells using TREX cemented completion solutions.

Packers Plus is the innovator of multi-stage completion systems, providing field-proven and cost-effective methods for completing horizontal wells with superior production results in numerous formations worldwide. The company has diversified its portfolio with the TREX Cemented Completions Product Line that includes single point and limited entry ball-activated sleeves, multiple hydraulic toe sleeves, composite plugs, and liner hangers.