



# Bulldog Frac™

## The “Dirty” Test

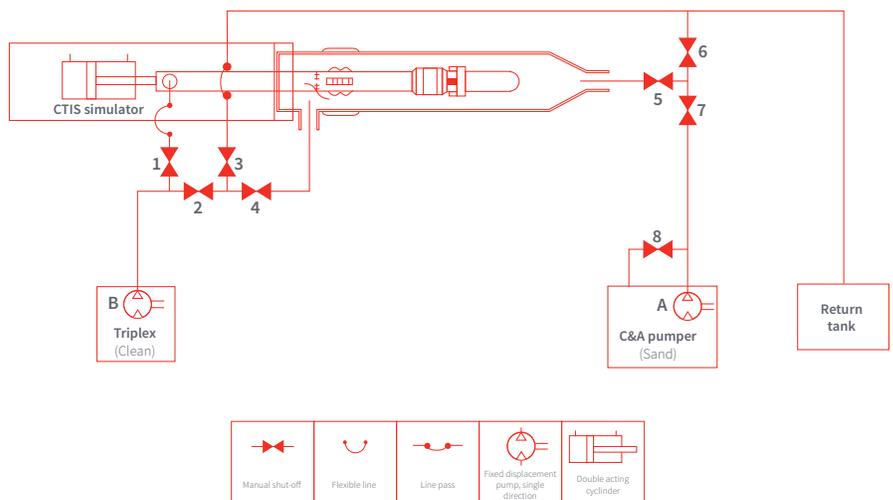
### Remove the risk from your completion and let the reservoir do the talking

The Bulldog Frac system is a versatile and robust means of conducting an annular stimulation. Using our Bulldog Frac sleeves, wellbore restrictions are eliminated, meaning operators can push the limits of each treatment and maximize wellbore productivity. Each sleeve is shifted using the Bulldog Frac BHA's active locating system and is stimulated by isolating the wellbore with a multi-set packer. Pumping down the coiled tubing annulus permits higher pumping rates and allows for better understanding of fracture geometry and dynamics.

### Proven Effectiveness in Action

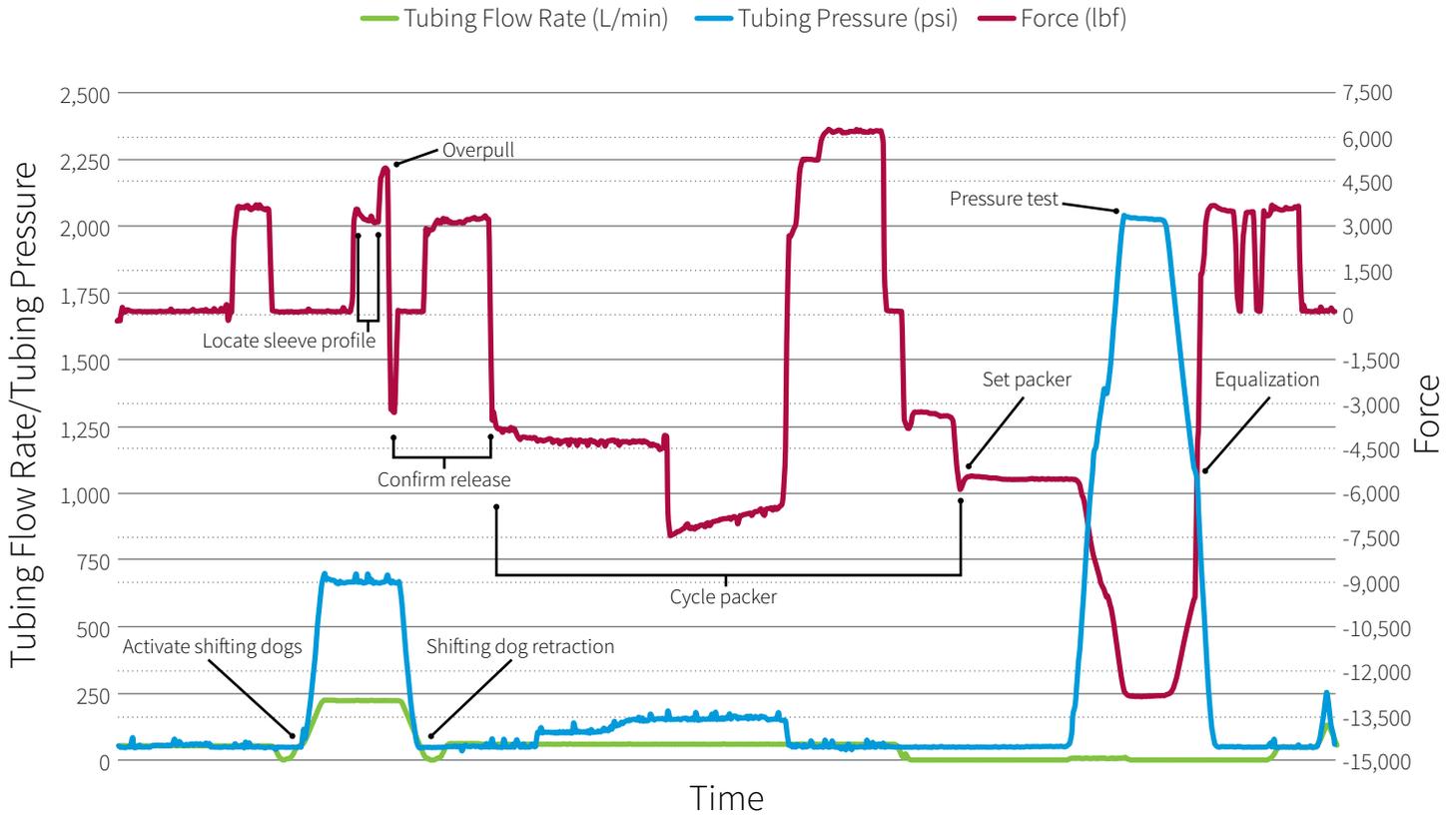
With a lab test designed and conducted to simulate actual wellbore conditions, a 34-cycle durability test was performed that lets you see the Bulldog Frac system in action, including:

- 34 activations and deactivations of the shifting tool
- 34 overpulls with the shifting tool engaged in the sleeve profile
- 34 packers set and unset, with a pressure test every time
- Success in each test



## The “Dirty” Test: Step-by-Step

1. Fill the test fixture with sand-laden slurry
2. Pump down the coiled tubing to activate the shifting dogs
3. Pull into the sleeve profile
4. Conduct the overpull
5. Stop pumping and allow the shifting dogs to retract
6. Cycle through the profile to ensure tool retraction
7. Run-in-hole and set the packer
8. Pump more sand slurry
9. Pressure test the packer to a 2,000 psi differential
10. Unset the packer and prepare to start the cycle again



## The Results

Using the testing parameters above, we showed that the Bulldog Frac system performed to its robust design standards, proving the durability and reliability of the system in even the harshest conditions. Simply put, we remove the risk from your completion and let the reservoir do the talking.

Through multiple testing, our Bulldog Frac withstands the harshest conditions any day and any time.

