



RESERVOIR STIMULATION SERVICES TO INCREASE ULTIMATE RECOVERY

The shale revolution of recent years continues to provide abundant supplies of oil and gas to meet the nation's energy needs. However, while many of these wells are still producing economically, some need remedial solutions to help maintain or increase production.

NexTier has a range of technologies engineered to help regain production and increase the ultimate recovery from your well. Across the continental US, our unsurpassed experience in unconventional reservoirs enables us to tailor an effective and economical solution to help increase production.

- We bring our unmatched quality and customer-first approach to every customer, on every job.
- NexTier provides a full package of services for your well, including wireline services and a full range of coiled-tubing services.
- Our engineering group can help identify problems and provide solutions for the most challenging reservoir.
- NexTier engineers and laboratory technicians can design a fluid system compatible with your particular well parameters. Our PureStim™ fluid systems can be designed to perform over a wide range of temperatures and applications.
- Safe and experienced crews are ready to help you get production online in a timely manner.

Our engineers will review the initial well-completion plan, study the well's production decline curve and take into account formation characteristics to devise the best solution for your well.



Refracturing Service

When you look at the decline curve of any unconventional reservoir, reserves are always left on the table. Research shows that not all perforations are stimulated during the initial completion.

Small-mesh sands have been proven to flow back into the proppant pack, and fines migration is one of the quickest ways to kill a low-permeability reservoir. What if you could go back and try again with something better?

NexTier's refracturing service can help you do just that. Based on your well's production and reservoir data, our engineers will help you select the best-suited diversion method to target understimulated perforations. These cost-effective, top-performing diverters are easy on your budget and won't damage the formation.

Diverters

There's no such thing as a homogeneous treatment interval. This can cause your treatment to make uneven contact with the reservoir, which greatly reduces the productivity of your wells. NexTier offers premium diverters to help optimize fracturing, enhance recompletion and fight lost circulation.

ReDirect™ diverters for enhanced stimulated reservoir volume (SRV) isolate dominant perforations and fractures, redirecting fluid into understimulated sections of the target interval. This engineered solution degrades with time and temperature – including in low-temperature formations.

Our IsoVERT™ midstage diversion material is ideal for initial fracturing or recompletion operations. It also provides a temporary barrier against lost circulation during wellbore cleanouts in depleted and low-pressure reservoirs.

Re-ConSM Frac-Less Restimulation

Pipe integrity issues can prevent high-pressure treatments from being a viable option. When this is the case, NexTier's proven Re-Con frac-less restimulation is the solution.

By cleaning the wellbore and the existing fracture network, this treatment remediates damage to the perforations and the proppant pack – without the possibility of damaging the casing string. Using the latest in advanced chemistries and several leading-edge technologies, we provide the highest probability of engineered success for each well treatment.

Acid-Wash Service

Well performance is affected by many factors. Depletion of the reservoir through normal production causes pressure drops across the fractures and perforations. The pressure drops can often result in damage due to:

- Scale formation from produced waters
- Organic depositions from the produced fluids
- Wettability alterations due to insufficient surfactant applications/loadings
- Emulsions from pH shifts
- Incompatible or contaminated base fluids
- Polymer damage sustained during the initial fracturing process from guar and polyacrylamide friction reducers



(Acid-Wash Service, continued)

Once production begins to decline, identifying the right solution is critical. Often, refracturing the well isn't necessary. In many cases, acidizing to remove damage can be a viable, more cost-effective solution.

Our engineers and laboratory technicians can formulate an appropriate acid system to remove the damage. These treatments can be pumped using various techniques, based on specific well conditions. Each solution will be tailored to the individual well and formation for the most effective treatment available.

LateralScienceSM Method

Placement of the perforations during the refracturing process is just as important as fluid and propant selection. An engineered approach enables you to strategically place the perforations to get maximum reservoir contact. Our proven, cost-effective method provides a solution using data you already have on hand.

The LateralScience engineered-completion method leverages commonly available drilling measurements and mud-motor parameters to assess the reservoir and help guide the placement of perforation clusters. The result is an optimized horizontal completion with a uniform fracture treatment within each stage.

Engineering the Best Possible Outcome for Your Stimulation Treatment

With every service and solution we deliver, NexTier excels in the areas of safety performance, efficiency, partnership and innovation. We operate from a proven partnership model that provides consistently high service quality, transparency and a relentless focus on continuous improvement.

To regain production, increase ultimate recovery and boost profitability from your shale reserves, contact your local NexTier sales representative.



NexTier is a leading provider of integrated completions, focused on the most demanding land basins in the US. Across the nation, we are committed to helping the most demanding producers accelerate production through proven, integrated completion solutions. Our focus on safety, innovation and efficiency drives leading results for our customers.



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