

COMPLETION AND STIMULATION

Refracturing Technologies and Services

Revitalizing the productivity
and profitability of existing wells

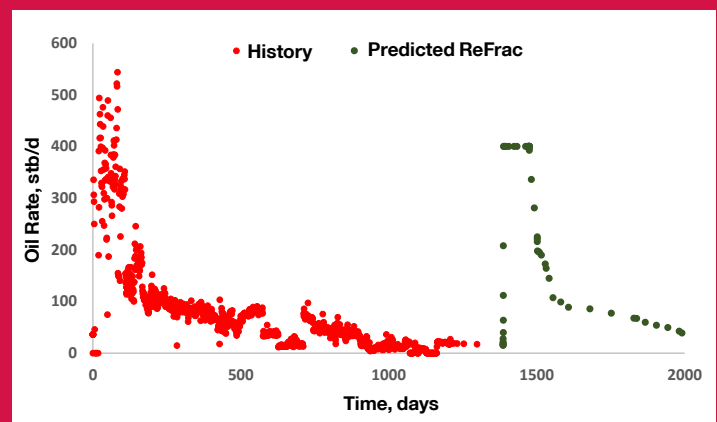


Get more. Spend less.

Revitalize your existing wells with minimal investment.

Production levels often begin at desirable rates but then decline rapidly within a few years, especially in unconventional wells. In some cases, production never reaches the levels you initially expected. The traditional response is to drill new wells, but this approach is costly, time consuming, and simply not feasible when margins are razor thin.

Declining well performance doesn't have to mean the end of a well. When wells underperform yet hydrocarbon reserves remain, refracturing may be the answer. Refracturing can yield more hydrocarbons and profits from your existing wells—maximizing your original return on investment—at a fraction of the cost of drilling new wells. As one of the most experienced refracturing service providers in the world, Weatherford can help you transform your lackluster wells into valuable assets.



Refracturing achieves significant production gains in existing wells and, in some cases, can restore production to initial levels. Although post-treatment production tends to mimic the original decline curve over time and usually requires periodic follow-up treatments, refracturing can be an efficient and cost-effective alternative—compared to drilling new wells—for sustaining long-term productivity and enhancing ultimate recovery.

TBlockSure® diverting agent improved production by

83%

over a 30-day period

Refracturing Technologies

Our comprehensive suite of refracturing technologies re-establishes casing integrity and zonal isolation, targets treatments precisely, and enhances operational efficiency.

TBlockSure® Biodegradable Diverting Agent

Temporarily seals natural and hydraulically induced fractures so that fracturing fluid can be directed to new target areas

MetalSkin® Cased-Hole Liner System

Isolates damaged or perforated casing to enable selective stimulation of zones

HOMCO® Internal Steel Liner Casing Patch

Seals perforations, leaks, and corroded areas within casing that can hinder production

Weatherford Refracturing Framework

With our FracAdvisor® service, we maximize the impact and cost effectiveness of your refracturing operations by helping you select the right wells and optimize stage placement. Using our consistent, field-proven approach, our experienced consultants guide you through each refracturing job. We partner with you throughout the process to meet your production objectives, within your budget and timeline.

1

Candidate Selection

We evaluate the formation, the original completion design, the current performance of your wells, and the causes for dwindling production. Then we assess which wells are suited for and have the highest potential to benefit from refracturing.

2

Design

We pinpoint optimal spots for accessing and exploiting hydrocarbon reserves. Then, we custom-design refracturing treatments and select technologies that will get the job done most efficiently and cost effectively. Before we deploy the treatment, we conduct 3D simulations to identify and correct potential problems and maximize the probability of success.

3

Execution

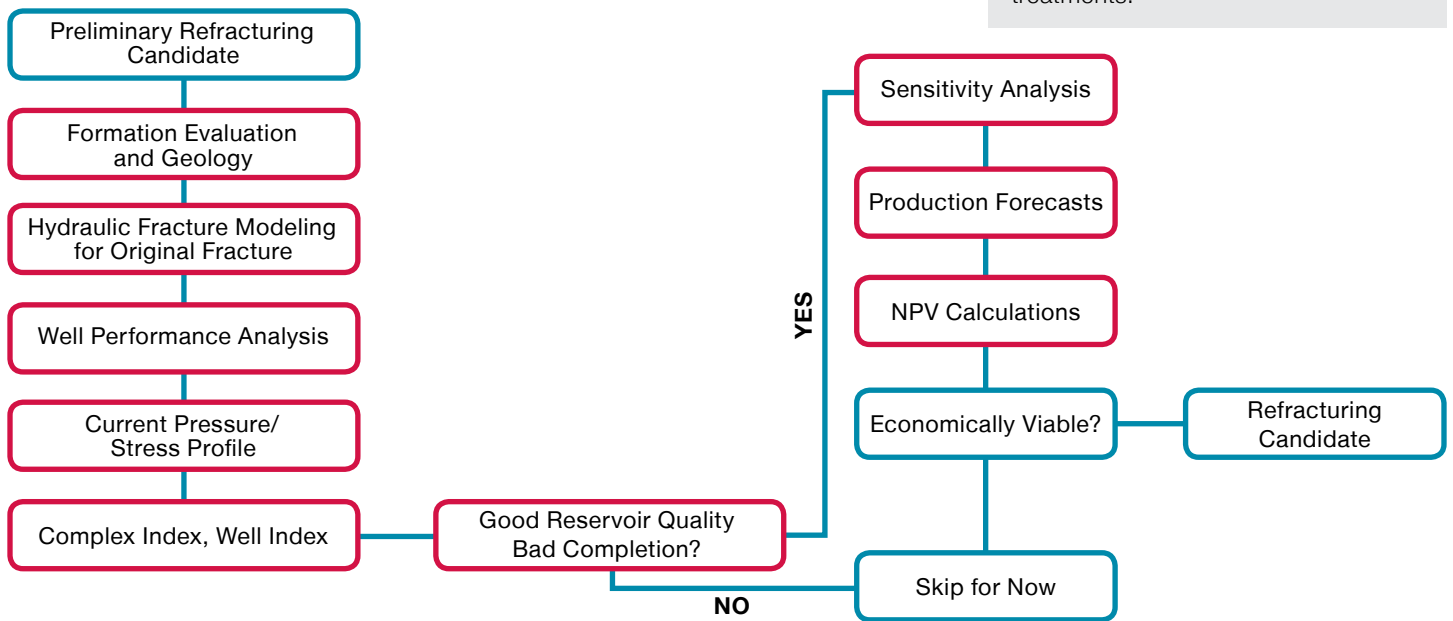
Our refracturing treatments boost production—often at or near original rates—while minimizing impact on untreated wells nearby.

4

Evaluation

We use microseismic data, daily production results, and water- and oil-soluble tracer tests (when the tests are available) to determine the effectiveness of the treatment and make recommendations for future treatments.

FracAdvisor Process for Refracturing Candidate Selection



Coiled-Tubing (CT) Frac Straddle System

Achieves zonal isolation and treats only a targeted area of the wellbore—a zone, a stage, or even a single set of perforations—during a single pumping operation

Inner-String Recompletion Technologies

Incorporates a wide portfolio of technologies—including the ZoneSelect® stimulation system and hydraulic and swellable packers—to improve well integrity and facilitate successful refracturing

CT Packers

Provide CT-conveyed mechanical isolation

Frac Sleeves

Isolate zones and divert fracturing treatments in multiple zones

Coil Shift Sleeves

Shift open with annular flow to stimulate zones

ReelFrac Compression-Set Straddle Packer System

Enables multizone isolation and fracturing in a single trip

Weatherford refracturing technologies and services help you extract more hydrocarbons and prolong the cash flow from your existing wells. For more information, visit weatherford.com



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