



THE SCREEN OUT SOLUTION

The Hidden Cost of Industry Silence

A \$4 Billion Problem Nobody Talks About

Screen outs in unconventional wells represent one of the most insidious drains on operator profitability. Not because they're inevitable, but because they're widespread, expensive, and largely preventable. The numbers tell a stark story:

The Real Cost Per Well: \$785K Annual Loss

For a typical 50 stage well with a 3% screen out rate:

Cost Category	Per Well Impact
Lost production (1.5 stages x 600 BOE/day x 365 days x \$60/bbl)	\$390,000
Operational costs (clean out, shutdown, chemicals)	\$185,000
Wasted capital deployment	\$210,000
TOTAL FIRST-YEAR LOSS	\$785,000
Percentage of Well Capital	11%

Table 1: Annual financial impact of screen outs per well

For the Permian Basin alone in 2024.

The Deeprop Advantage: Elimination, Not Management

Why Scouring the Near-Wellbore Junction Past the Perforations Changes Everything

Screen outs occur at the near-wellbore junction where geometry, formation debris, and proppant bridging create flow restrictions. Traditional approaches manage this risk. Deeprop eliminates it.

1 *Perfect Entry Geometry*

Deeprop's micro-sized proppant particles possess extremely low inertia, enabling them to navigate the critical turn from the wellbore trajectory directly into perforations without impacting or abrading perforation edges at the casing. This eliminates mechanical damage that compounds screen out risk.

2 *Aggressive Scouring Action*

Once through the perforation and in the near-wellbore region, Deeprop's high entrance velocity combined with exceptional strength creates continuous scouring action against rock surfaces and geometric tortuosity. This active scouring:

- Removes formation fines and debris
- Breaks down restrictive geometry
- Reduces flowpath tortuosity
- Dramatically improves injectivity into forming fractures



The Pressure Proof

Treatment plot data (Figure. 1) demonstrates Deeprop's impact in field conditions:

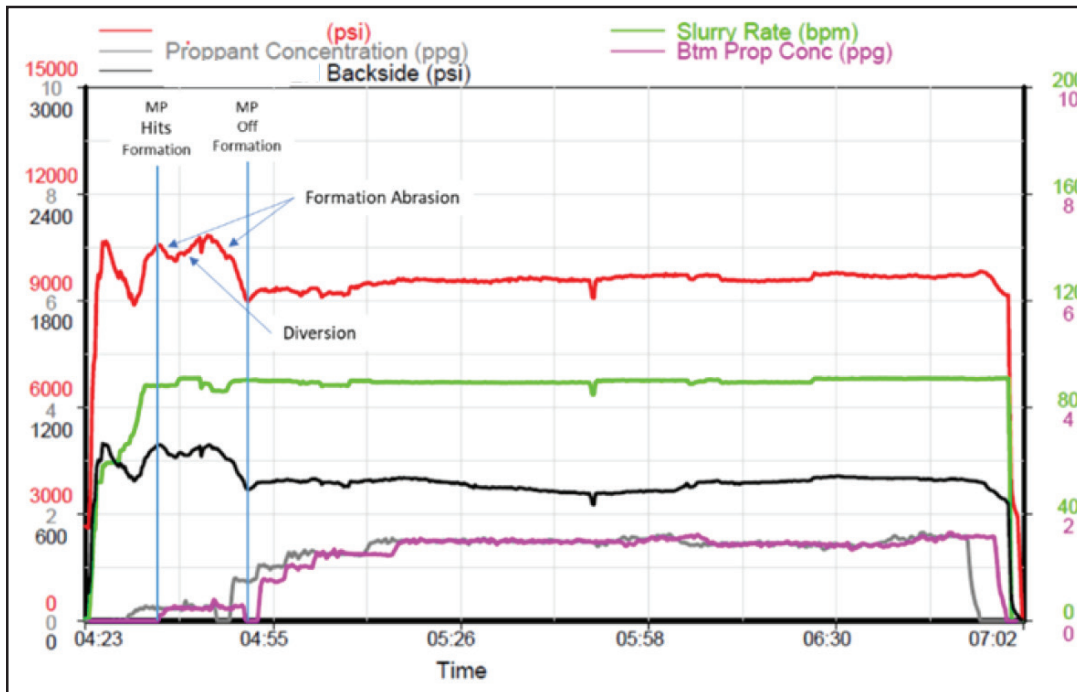


Figure 1: Treatment plot showing surface pressure (red), backside annulus pressure (black), slurry rate (green), surface proppant concentration (grey), and bottom hole proppant concentration (magenta). Deeprop injections (marked by vertical blue lines) produce immediate and sustained pressure reductions of 800-1,500 psi.

► The Economics: Payback in Less Than 4 Months

Investment Scale

- Deeprop volume per stage: **500 gallons**
- Typical well stages: **50**
- Total treatment: **10,000 to 25,000 gallons. Typically used in toe, roughly 40 percent of stages**



Why Operators Choose DEEPROP®

- 1 Proven Elimination:** 500+ stages across tight rock benches with zero screen out recurrence
- 2 Immediate Pressure Response:** 800-1,500 psi treatment pressure reduction demonstrates real-time near-wellbore improvement
- 3 Unmatched Economics:** Sub-4-month payback on a **\$7M** + well investment
- 4 Confidence in Execution:** Deployed by multiple operators with consistent success
- 5 Deep Bench Specialization:** Engineered for the highest-risk, deepest formations where screen outs are most costly with lateral lengths increasing to 3-5 miles, DEEPROP becomes essential

The DEEPROP® Difference: Engineering Meets Economics

Screen outs aren't an acceptable cost of doing business. They're an engineering problem with an engineered solution. Deepprop doesn't manage screen out risk. It eliminates it. For operators in the Permian, Wolfcamp D, and other deep tight formations, the question isn't whether you can afford Deepprop.

It's whether you can afford not to use it.

Next Steps

Contact us to discuss Deepprop deployment for your next completion campaign. Our technical team will work with your engineering group to optimize stage design, volume recommendations, and deployment logistics specific to your formation and operational parameters.

***The data is clear. The economics are undeniable.
The choice is yours.***



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