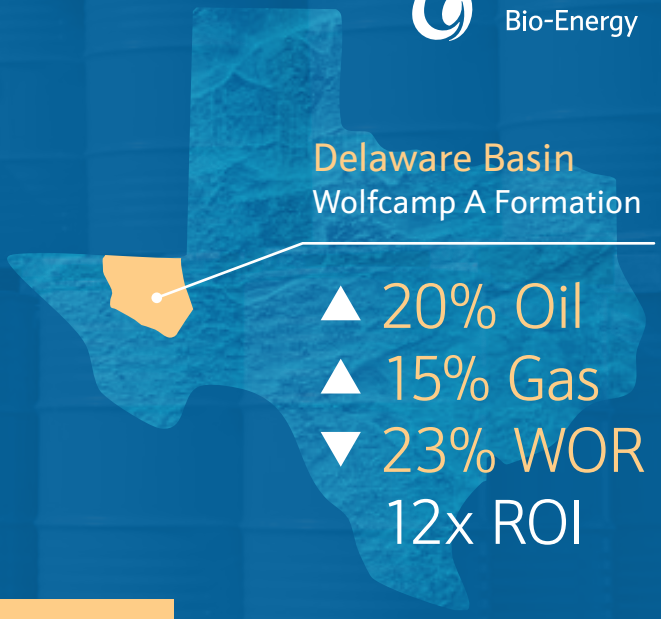
CASE STUDY

LOCUS Bio-Energy

SUSTAIN® Biosurfactants

Higher ROI and Production in Frac



▲ 20% Oil
▲ 15% Gas
▼ 23% WOR
12x ROI

OVERVIEW

The Challenge

A major oil and gas operator in the Delaware Basin sought to improve well productivity in the Wolfcamp A formation through optimized surfactant chemistry.

Traditional surfactant systems had historically delivered inconsistent results due to variable chemistry qualification and selection processes—limiting recovery and return on investment (ROI).

As a result, the operator had eliminated surfactants from hydraulic fracturing programs for nearly a decade. With mechanical designs and stage efficiency already optimized, further gains required a new focus: chemical efficiency.

The operator needed a surfactant capable of performing under the high-salinity, low-permeability conditions of the Wolfcamp A formation, where capillary pressures restrict oil mobility, while still improving flowback, initial production (IP), and long-term recovery.

The Solution

To identify the most effective chemistry, the operator commissioned a third-party qualification study comparing 20 surfactants from multiple vendors under simulated reservoir conditions.

SUSTAIN® SF101, a biosurfactant-based technology from Locus Bio-Energy, ranked as the top performer across multiple performance objectives while meeting price metrics, was selected for field trials.

TRIAL DETAILS

Surfactant Loading	1.0 gpt (operator selected)
Pad Configuration	6 wells (3 treated with SUSTAIN®, 3 untreated controls)
Completion Design	Zipper-frac configuration with matched lateral lengths, proppant volumes, and fluid designs; treated and untreated wells isolated for unbiased comparison
Monitoring Period	186 days post-frac
Data Collection & Validation	Production data sourced from statutory monthly public data reporting, compiled by and sourced from Enverus, and verified by the operator.
Performance Benchmark	Operator target: ≥10% oil uplift and positive ROI within 6 months of treatment

See the **Results**

12x

ROI Impact

Incremental oil value ÷ surfactant cost over 186 days

▲ 20% Oil ▲15% Gas ▼ 23% WOR

THE RESULTS

Field Performance Summary

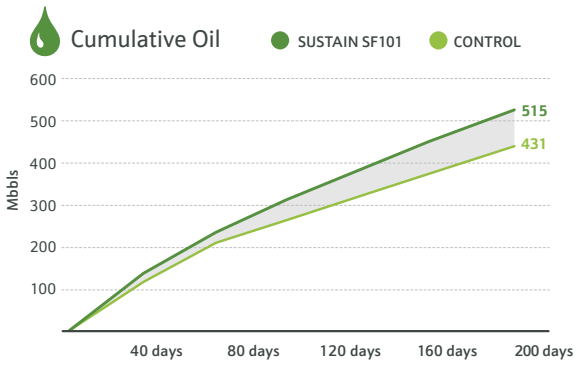
SUSTAIN®'s optimized formulation delivered measurable uplift across all performance metrics:

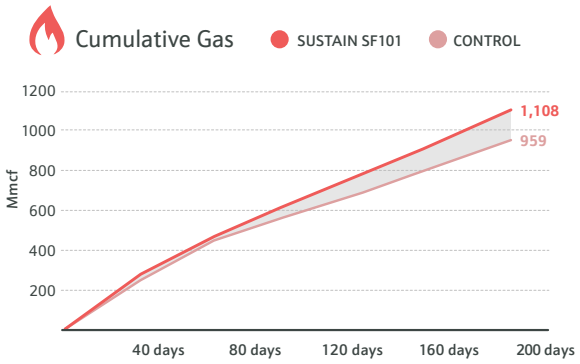
- **Faster Oil Cut & Flowback**
- **Higher Initial Production (IP)**
- **Sustained oil production uplift** throughout the 186-day monitoring period
- **Improved WOR** and overall fluid recovery efficiency

Key Takeaway

SUSTAIN® SF101 improved frac performance and recovery in Wolfcamp A wells—achieving a **payout in less than one month and a six-month ROI exceeding 12x**.

By delivering consistent performance under the high-salinity, low-permeability conditions of the Wolfcamp A formation, SUSTAIN® demonstrates how optimized surfactant chemistry can drive measurable production and economic gains without altering completion design.





MORE FROM LOCUS

Extend production from frac to flowback and beyond.

Discover how SUSTAIN®, STIM®, and AcidBoost® work together to maximize recovery and ROI across the well lifecycle.

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