LIQUID ASSETS

PureChem® Services

Fracturing & Completions

PureChem NanoSurfactant

Nano + Surfactant

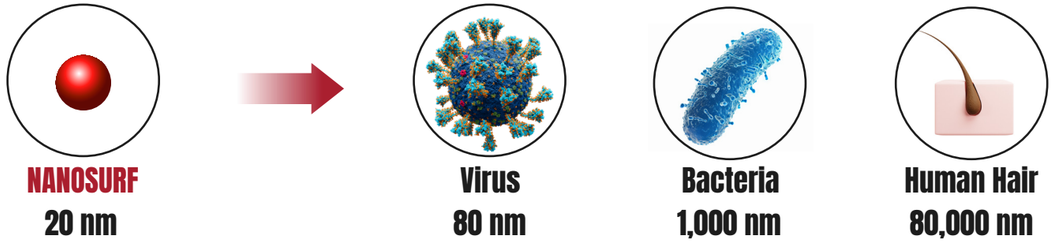
Nano Particles

Our nanosurfactant contains nano-structures averaging 20 nm in size. Nanoparticles are tiny particles that help reduce the surface tension between oil and water or between water and rock surfaces, making it easier for oil to flow from rock formations or be extracted more efficiently. The majority of surfactant structures are always in the nano-range.

Surfactant

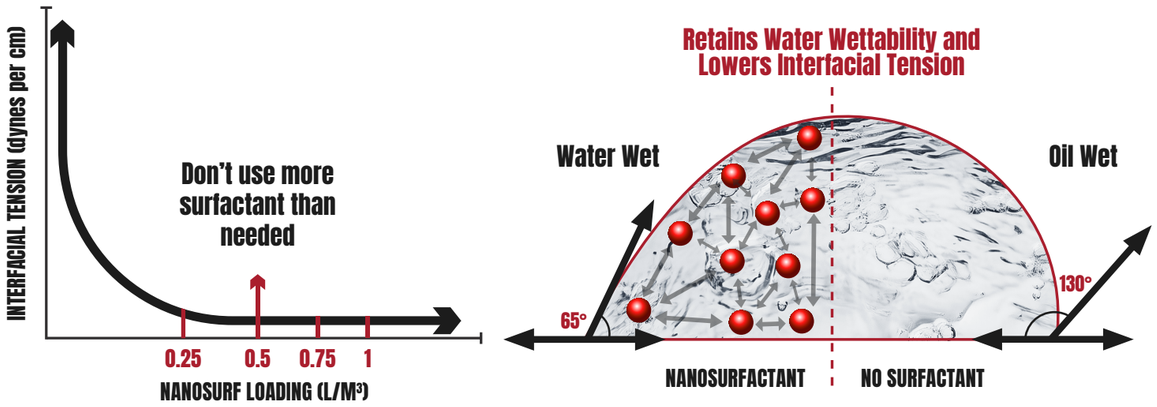
Surfactants are chemicals that migrate to the interface between liquids or between a liquid and a solid, reducing the tension at that surface. Lower surface tension between the water and the rock reduces the capillary pressure and lowers the interfacial tension, allowing for more hydrocarbon flow mobility.

Nanosurf is a water-based surfactant and flowback enhancer designed to alter wettability and improve production.



Surfactants have a history of being misunderstood

At PureChem Services, we determine the loading depending on the critical micelle concentration (cmc) and its impact on wettability; beyond this point, additional surfactant has minimal impact. This means a little can go a long way.



PureChem's surfactant technologies enhance hydrocarbon flowback by reducing interfacial tension, adjusting wettability, and revitalizing wells that produce less than their regional counterparts.

Why adding NanoSurf improves production in your well

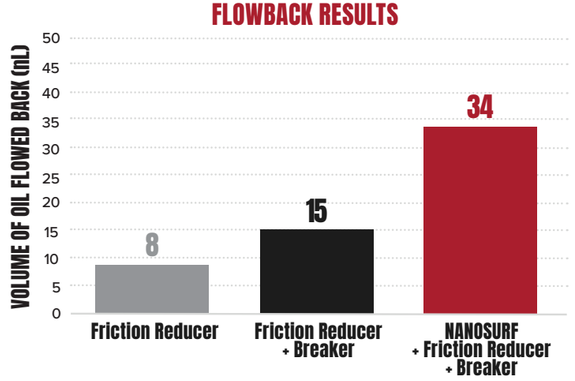
Enhanced Recovery & Protection
Reduces the risk of damaging the geological formation, retains water wettability in water wet formations, and lowers interfacial tension for better oil mobility.

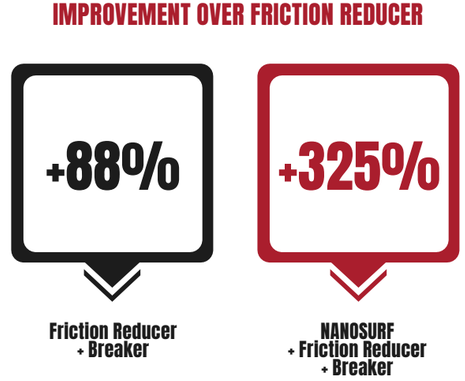
Optimized Fluid Dynamics
Decreases surface and capillary pressures to facilitate the flowback of oil and enhance its movement through the reservoir.

Versatile and Adaptable
Water-soluble and compatible with water-based fracturing additives, NanoSurf is effective across a broad spectrum of pH levels and temperature conditions.

NanoSurfing to Enhanced Flowback in the Duvernay

Testing on NanoSurf demonstrated a significant increase in oil flowback by restoring water wettability and reducing interfacial tension. NanoSurf outperformed other products, producing the highest oil flowback in tests designed to replicate the characteristics of a Duvernay reservoir.





Third party testing was conducted using microfluidic testing using a porous media analog that replicated the inherent geometries and parameters of porosity, permeability, pore throat size distribution, temperature, and pressure of a Duvernay reservoir.

Why PureChem?

01 Faster Service

02 Stronger Supply Chain

03 Satellite Labs & Storage Facilities

04 Extensive R&D Program

05 On-Demand Blending

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