

A blue-tinted photograph of several hot air balloons floating over a range of jagged mountains. The balloons are of various sizes and are scattered across the sky. The mountains in the foreground are dark and silhouetted against the lighter sky.

Ultra-Lite™

Glass versus Gas

Designed to optimize Drilling Performance...

Our name comes from our belief in the concept of ECD management. An inherent understanding of the interactions between MPD and Drilling Fluids, enable us to deliver truly customized solutions. Designed to optimize drilling performance while minimizing cost, our services combine our technologies and techniques with equipment innovations for superior results in the field.

Our Glass vs. Gas concept is an example of innovative technologies applied to offer an alternative to underbalance drilling with crude oil and N₂. This unique approach utilizes Ultra-Lite Glass Bubbles to reduce the density of the fluid, displacing the need for nitrogen injection.

Our UltraLite™ Glass Bubbles reduce the density of drilling fluids, removing the need for nitrogen injection. This leads to a reduction in equipment, personnel and fuel costs while improving safety and environmental footprint. Ultra-Lite based fluids can be reconditioned and reused, helping clients further reduce costs.



**COST
EFFECTIVE**

Ultra-Lite™ eliminates the need for expensive equipment required to achieve underbalanced conditions. For example, compressors, boosters, nitrogen membrane units and any associated NPT, realizing savings up of up to 40%.



HSE

With the reduction of equipment, personnel and fuel associated with on-site nitrogen generation safety is improved. In addition, Ultra-Lite™ achieves underbalanced conditions with zero-emissions reducing the environmental footprint.



LOGISTICS

With no specialized compression equipment to mobilize and rig up, logistics are simplified; saving time and reducing costs while maintaining drilling plans using existing equipment.



CONTROL

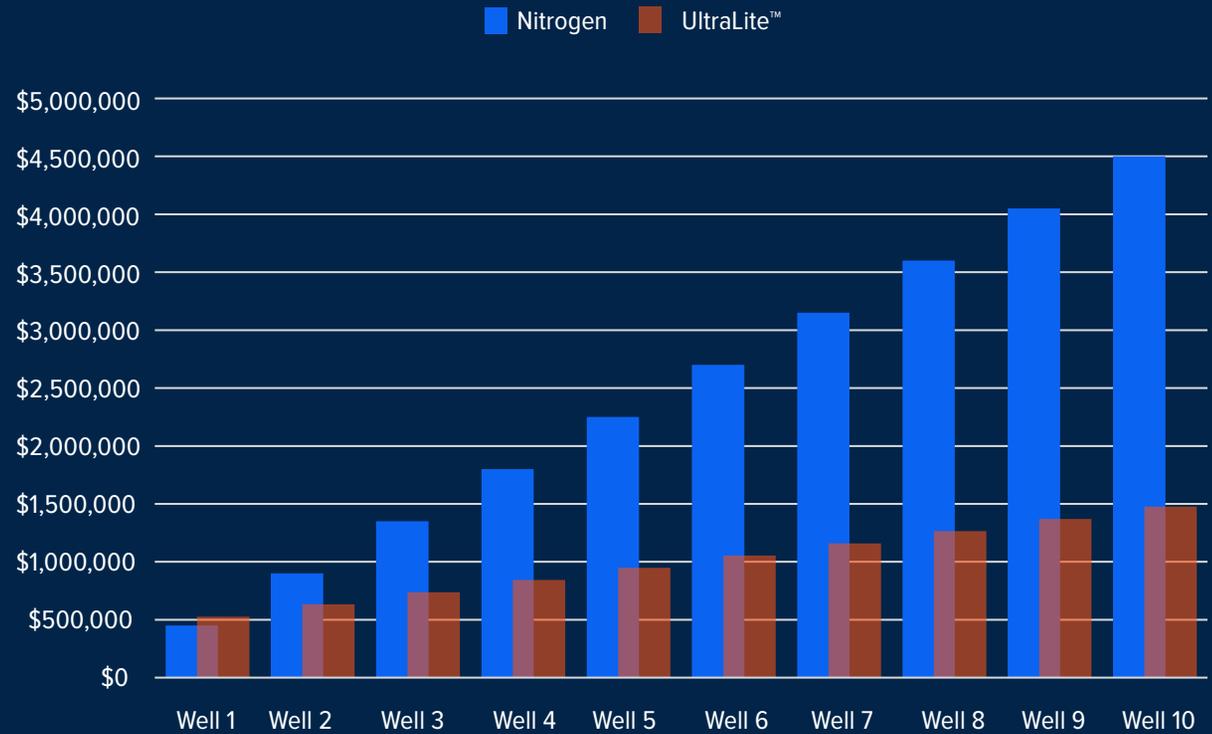
A single-phase fluid, combined with a choke system allows instantaneous mud weight changes and consistent ECD without the inconsistent slug flow inherent with compressible fluid systems.



Ultra-Lite™ Glass Bubbles Are Tough & Tiny

ECD Management understands the specific needs of operators in the region. A unique and challenging exploration environment requires novel technologies to reduce costs without compromising safety and the environment. Light weight drilling fluids can be formulated by mixing Glass Bubbles that act as density reducers to achieve the required underbalanced conditions. Our approach results in a myriad of problem-solving options to drill wells in low pressure fields, depleted reservoirs and weak formations.

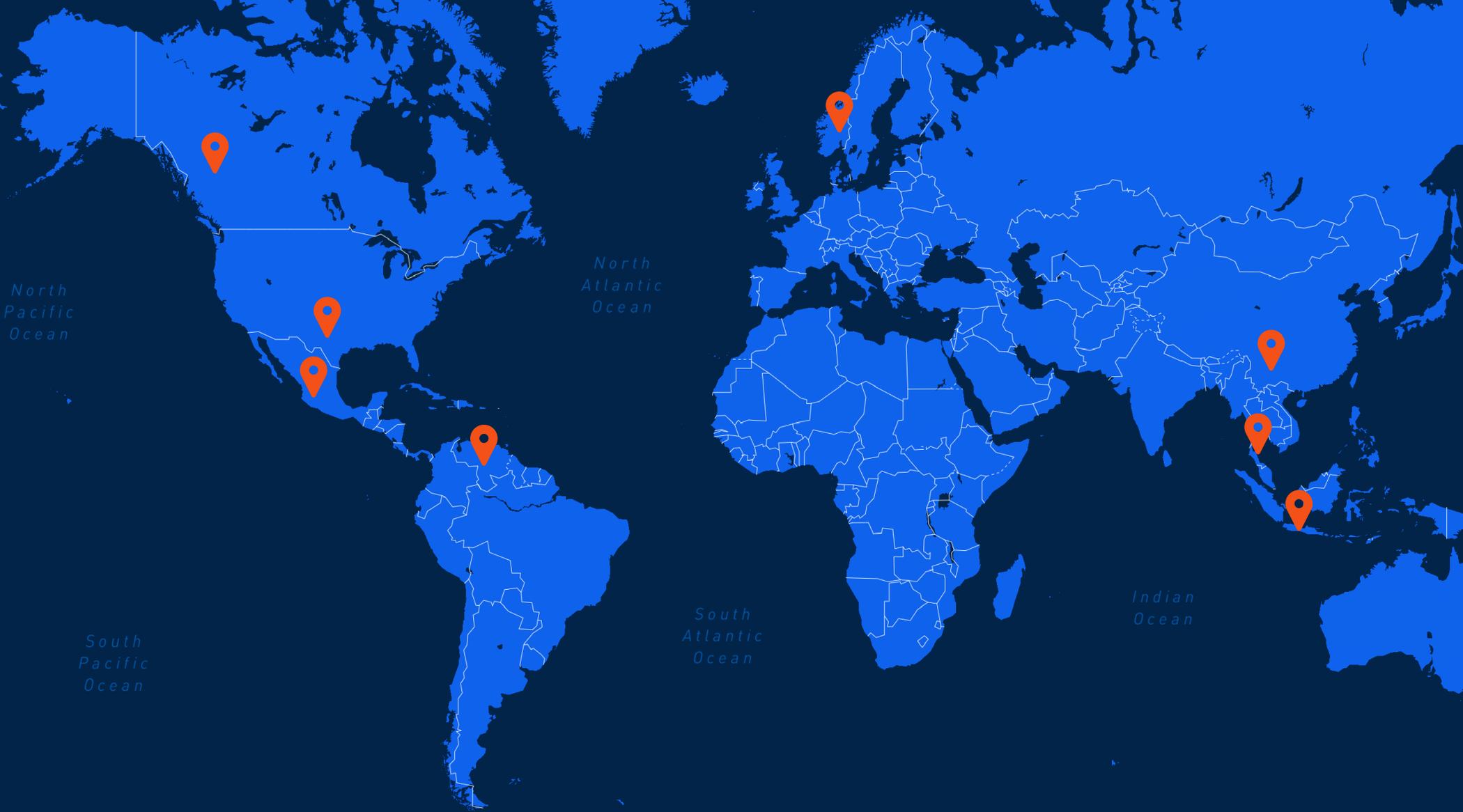
Product	Nominal Density (g/cc)	D ₅₀ (micron)	Isotatic Crush Strength*	
			Minimum Fractional Survival	Test Pressure (psi)
Ultra-Lite8	0.42	26	90%	8,000
Ultra-Lite19	0.46	20	80%	19,000



Cost Comparison

The chart above demonstrates the cost savings over a 10 well project. The cost of Nitrogen includes, equipment rental, personnel charges and fuel. The Glass Bubbles cost includes 20% system maintenance per well. The UBD interval is assumed to be 30 days.





Case Studies

SPE-199665 (2020)

OMAE2017-62132 (2017)

SPE-183681 (2017)

SPE-182973 (2016)

SPE-175737 (2015)

SPE-175189 (2015)

SPE-174010 (2015)

SPE-130326 (2010)

SPE-182978 (2016)

SPE-181347 (2016)

SPE-108423 (2009)

SPE-99174 (2006)

SPE-82276 (2003)

SPE-75508 (2002)

SPE-174010 (2015)

115-0078-JPT (2015)