

AES VERT

INVERT EMULSION



AES DRILLING FLUIDS



DESCRIPTION

AES VERT is a robust, flexible invert emulsion drilling fluid system that provides all of the benefits of invert emulsion with maximum operational efficiency. AES VERT performs across a wide range of densities and temperatures, including long horizontal wells exceeding 30,000' measured depth.

AES VERT formulations are modified for performance in specific well applications, aiming to reduce costs and maximize the advantages offered by invert emulsion systems. A key factor of AES VERT is its specially designed emulsifier and wetting agent packages. These components ensure fluid stability and compatibility, requiring minimal maintenance.

AES MUL X[†] is specifically optimized for diesel and similar base fluids, ensuring a stable emulsion and effective control over secondary filtration. When used in conjunction with appropriate concentrations of AES WA II[†] or AES WA X[†], it maintains the oil-wet characteristics of solids. AES VERT products are designed to be versatile, capable of performing well across a wide range of oil-to-water ratios and internal phase salinities.

To achieve successful outcomes, it is crucial to begin with a well-designed drilling fluids program that carefully assesses offset risks and incorporates necessary mitigating measures. In certain cases, hydraulic simulations and additional laboratory testing may be employed to determine operational limitations and plan for potential contingencies. By implementing comprehensive upfront planning, AES VERT provides an ideal solution for simplifying the complexities associated with challenging wells.



DESCRIPTION

AES VERT

Invert emulsion drilling fluid system

Additives optimized for performance and simple



BENEFITS

AES VERT

Excellent lubricity and rate of penetration

Flexible to address numerous drilling challenges

Tolerates formation solids and a wide variety of contaminants for simple maintenance



APPLICATIONS

AES VERT

Challenging wells where an invert emulsion performance is desired

Extended reach wells and wells with complex trajectories

Where diesel or similar base oils are approved for use

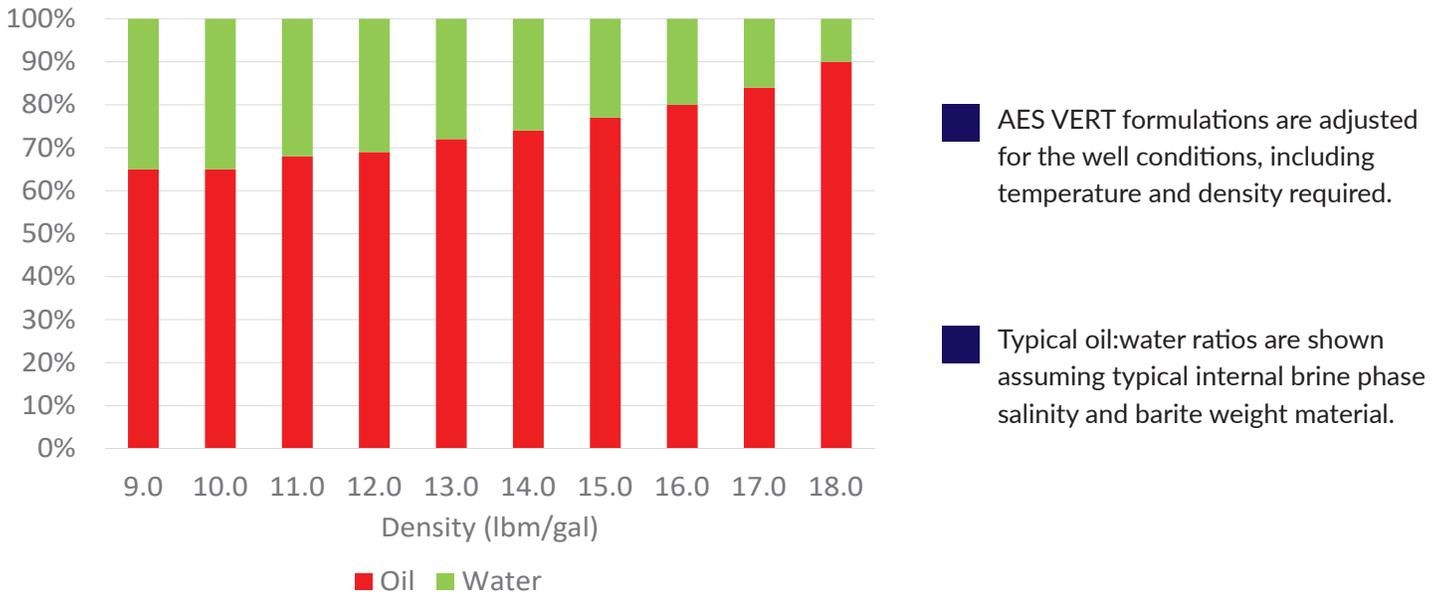
APPLICATION

AES VERT is an excellent choice for various wells that require an invert emulsion system. It offers superior inhibition and lubricity, simplifying the drilling process in challenging extended reach wells compared to water-based systems. AES VERT is available at densities ranging from below 7.8 lbm/gal to over 20 lbm/gal, and higher densities can be achieved as needed.

For extended reach wells and complex trajectories, AES VERT provides enhanced lubricity and its inhibitive properties help stabilize shale formations while maximizing the rate of penetration. It effectively resists contamination from formation solids and remains stable even at temperatures exceeding 325°F.

AES VERT utilizes diesel or similar base fluids for the oil phase. By implementing an optimized solids control program, dilution requirements can be minimized, leading to lower overall treatment costs.

Typical Oil:Water Ratio By Density



PERFORMANCE

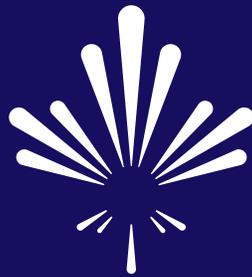
AES VERT formulations are adjusted for the well conditions, including temperature and density required. Typical oil:water ratios are shown assuming typical internal brine phase salinity and barite weight material.

In the Northeast United States, AES VERT is the preferred drilling fluid for extended reach wells, allowing for optimal reservoir contact from pad sites with multiple wells.

A 20,362' lateral section was drilled in just 5.65 days using a 12.5 lbm/gal AES VERT. Similarly, in the Permian Basin, AES VERT has successfully drilled numerous wells, tackling a diverse range of drilling challenges encountered throughout the region.


6500+
WELLS AND COUNTING





AES DRILLING FLUIDS

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