

MAGMA-TEQ

Successfully drill in hostile downhole conditions with minimal environmental risk

Applications

- Invert emulsion drilling fluids
- Wells drilled in high-temperature environments

Features and benefits

- Stable to temperatures above 400°F (204°C)
 - No sagging or gelation in extreme HP/HT environment
 - Exhibits minimal density differentiation under dynamic and static conditions
- Can be weighted up to densities above 18.3 lb/gal (2.2 sg) using barite or alternative weighting materials such as hematite or ilmenite
 - Improved hydraulics and better ECD using low plastic viscosity at high density
- Specifically designed for the use of commonly available aromatic-free base oils
 - Minimal occupational hygiene exposure
 - Conforms to the environmental regulations in the North Sea

As the search for petroleum becomes more extreme in terms of depths, pressures, and temperatures, Baker Hughes has led the way with our extreme high-pressure/high-temperature (HP/HT) emulsion technologies. The **MAGMA-TEQ™ synthetic-based invert emulsion drilling fluid system** is extremely robust and provides stable rheological and filtration control properties beyond the temperature limits of standard emulsion systems.

Increasing demand for drilling extreme HPHT wells in the North Sea and Gulf of Mexico areas demonstrated the need for an extreme HPHT drilling fluid with unique suspension properties to avoid commonly observed density differentiations (syneresis) under extreme conditions. Because it eliminates the influence of most drilling-fluid-related variables in extreme HP/HT conditions, the MAGMA-TEQ system is ideal for use in wells where temperatures exceed 375°F (191°C) and where pressures exceed 40,000 psi (276 mPa).

Environmental information

The system can be formulated with a variety of base fluids to meet regional environmental requirements.

For information concerning environmental regulations applicable to this product, contact the Health, Safety, and Environmental department of Baker Hughes.

MAGMA-TEQ system components:	
Product Name	Description
MAGMA-VERT™	Emulsifier for HP/HT emulsion systems
MAGMA-VERT™ NS	North Sea compliant emulsifier for HP/HT emulsion systems
MAGMA-GEL™	Viscosifier for HP/HT emulsion systems
MAGMA-GEL™ SE	Suspension enhancer
MAGMA-TROL™	Polymeric fluid loss additive for extreme HP/HT emulsion systems

Additional information describing recommended treatment, environmental information, safe handling recommendations, packaging description, and typical physical properties is available for each product.