TECHNICAL SHEET





QVERT[™]: Oil-based Drilling Fluid System

KEY BENEFITS

- Ideal for drilling troublesome shales
- Excellent hole stability
- Easy to maintain
- Can be recycled and reused

Solution for troublesome shales

Oil-based fluids allow for the drilling of reactive formations more efficiently than water-based fluids, therefore QVERT is a replacement for high-pressure, water-based fluids and other inhibited water-based fluids. The QVERT system is applicable where highly reactive formations are present, and there are no environmental restrictions for the use of oil-based fluids. The QVERT fluid system allows drilling through troublesome shale without interfering with the internal structure of the rock, provided it has the correct salinity to avoid movement of water from the mud to the shale. Superior lubrication properties make it ideal for drilling wells with complicated geometries and extended reach.

For significantly different formation pressures in a single interval, QVERT minimizes the risk of differential sticking. It can be used to drill with a mud density below the water gradient and is also recommended when high densities and temperatures are expected, and is ideal for offshore use in shallow applications where it is necessary to provide borehole stability across water sensitive shale. The capillary pressures, convex meniscus in capillaries, and osmosis are responsible for the shale inhibition resulting in excellent borehole stability and the retrieval of undispersed cuttings.



QVERT is a replacement for high-performance, waterbased fluids and other inhibited water-based fluids.

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| QVERT | |
|------------------------------------|------------------------------|
| Property | Typical Range |
| Mud Weight, ppg (kg/m³) | 7.2 - 17.5 (860 - 2100) |
| Plastic Viscosity – cP | 5 - 35 |
| Yield Point, lb/100ft² (Pa) | 8 - 30 (4 - 15) |
| Gels, lb/100ft² (Pa) | 2/16 - 10/24 (1/8 - 5/12) |
| Lime excess, ppb (kg/m³) | 2 - 6.5 (6 - 18) |
| Electrical Stability, Volts | 600 - 1000 |
| HTHP Fluid Loss – cc/30min | 4.0 - 8.0 |
| LSYP, lb/100ft ² (Pa) | 6 - 12 (3 - 6) |
| Water Phase Salinity, mg/L | 200K - 350K |
| Oil/Water ratio (OWR) | 75 / 25 - 95 / 5 |

We Deliver, No Excuses