TECH DATA SHEET

PRODUCT DESCRIPTION: BORE FORCE is an aqueous emulsion of anionic polyacrylamide/polyacrylate copolymer used to stabilize clay and shale formations and as a viscosifier. It can be used in fresh or brackish waters and mixes easily while requiring minimum shear to achieve full effectiveness.

Liquid PHPA is used as a shale inhibitor and solids-encapsulating polymer in freshwater, seawater, NaCl and KCl drilling fluid systems. Under specific drilling fluid system conditions, very low concentrations of PHPA can extend the viscosity of bentonite.

APPLICATIONS AND USE: For general clay inhibition or to increase the viscosity of the drilling mud, add 1 gal. of BORE FORCE per 1000 gal of new mud mixed. Make sure to pre-hydrate bentonite prior to making any BORE FORCE additions.

For added cuttings removal, pour a small amount of BORE FORCE directly down the drill pipe during a connection.

PRODUCT ADVANTAGES: • Significantly reduces torque and friction
• Highly effective cuttings transport
• Excellent viscosifier
• Maximizes Yield of bentonite

PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Milky opaque liquid (thick)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1.02 – 1.06</td>
</tr>
<tr>
<td>Ionic Character</td>
<td>Anionic</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 – 7.5</td>
</tr>
</tbody>
</table>

PACKAGING: BORE FORCE is packaged in the following:

• 5-gallon buckets, 32 buckets to a pallet