BARACAT® shale stabilizer is a positively charged polymer that absorbs to opposite negative charge sites on shales and clays, neutralizing the charge imbalance. The net result reduces the water demand and hydration rates of reactive formations which helps stabilize cuttings and the well-bore. BARACAT shale stabilizer functions in fresh water and monovalent brines.

**Applications / Functions**

- BARACAT shale stabilizer functions in fresh water, and in monovalent and divalent brines such as sodium chloride, potassium chloride, calcium chloride, and magnesium chloride

**Advantages**

- Helps minimize severe flocculation of the mud system, a common occurrence when high molecular weight, long-chain polymers are quickly added
- Requires small amounts to inhibit clay and shale dispersion
- Helps reverse the overall charge nature of formation shale (see Figure 1) as documented by Zeta Potential measurements of bentonite dispersions
- Helps minimize viscosity increases that can occur during treatment because the molecular size and shape prevents viscosity increases during hydration
- Can be mixed readily into the mud system without application of high shear because it is a liquid suspension
- Helps promote efficient use of solids control equipment through formation of large floc volumes of drill solids
- Note: Greater amounts of shale solids can be removed from the CAT-I system at lower centrifuge speeds than from a PHPA / CMC / PAC™ system. Both systems were formulated to have nearly identical rheological profiles with increasing shear rate.

**Typical Properties**

- **Appearance** Colorless to pale yellow liquid
- **pH** 3.5
- **Specific gravity** 1.033

**Recommended Treatment**

1. Treat initially with 1-3 lb/bbl (2.8-8.6 kg/m³) of BARACAT shale stabilizer for most CAT-I cationic drilling fluid system applications.
2. Monitor the BARACAT shale stabilizer concentration on a regular basis using the colorimetric procedure for determining excess BARACAT shale stabilizer.

www.halliburton.com/baroid
BARACAT shale stabilizer is packaged in 55-gal (208-l) drums.