

STEP-SVS-1 Viscoelastic Surfactant Fluid

The STEP-SVS-1 viscoelastic surfactant fluid system is designed to provide an easy-to-use, yet effective method of creating a lightly viscous fluid which can be used to create and maintain a stable foam. Upon foaming with nitrogen, this emulsified fluid is capable of carrying relatively high concentrations of proppants downhole. This system provides the benefit of using less water than traditional crosslinked fluid systems, which makes it beneficial in formations which may be water sensitive. Another benefit of this system is that it requires three per cent KCl water, which helps to minimize potential formation damage in water sensitive areas. The SVS-1 fluid system is typically run using 15-30 L/m³ of the surfactant SVS-1, dependent on reservoir temperature and required viscosities; 2 L/m³ of the low pH buffer SBL-2, and is broken with the breaker, SVB-1.

Properties

- Reduces water usage
- Suitable for water sensitive formations
- Optimized for use with three per cent KCl
- Creates a stable foam with nitrogen
- Temperature ranges up to 70°C
- Very low residue system, and formation friendly
- Operationally easy-to-use
- Compatible with a wide range of scale inhibitors, biocides, and other chemicals

Technical Data:

Table 1: Recommended System Loadings

Temperature	20-60°C	60-70°C
SVS-1	15 L/m ³	20 L/m ³
SCS-1	2 L/m ³	2 L/m ³
SBL-1	2 L/m ³	2 L/m ³
SVB-1	2 L/m ³	1.5 L/m ³