

ABSTRACT

METHOD FOR METAL SULFATE SCALE CONTROL IN HARSH OILFIELD CONDITIONS

A method for inhibiting barium sulfate precipitation in low pH aqueous fluids of underground petroleum-bearing formations by adding to such systems an effective amount of low molecular weight water-soluble polymer containing 5-35 weight percent sulfonic acid monomer units and 65-95 weight percent carboxylic acid monomer units, is provided. Polymer compositions based on 10-15 weight percent 2-acrylamido-2-methyl-1-propanesulfonic acid, 15-65 weight percent acrylic acid and 25-70 weight percent maleic acid are particularly preferred for use at very low pH conditions, e.g., 5.5 or less in the presence of high sulfate ion and barium ion concentrations.