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THE DEVELOPMENT OF A RAPID HYDRATION ON-THE-FLY CROSSLINKED WATER FRACTURING FLUID

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ABSTRACT

On-the-fly crosslinked water systems have been used for many years in the hydraulic fracturing industry. Past techniques have required that hydration tanks, retention tubes or high shear devices be used to continuously mix and hydrate the polymer prior to crosslinking the frac fluid. These hydration units add additional cost and complexity to fracturing treatments. This paper describes a new crosslinked zirconium fluid that gels and crosslinks, on-the-fly, without using any special hydration equipment. The paper outlines the current mechanisms for crosslinking water and explains the advantages of this new system. A case history of a multi-well fracturing project is presented and the economic saving of performing these treatments without a hydration unit is discussed.

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