

Case History

Increasing Well Injectivity in Geothermal Systems

Introduction

GEOTECH 2 is a combined product in the **Roemex** Geothermal Chemical range which is designed to mitigate CO₂ corrosion and scaling in geothermal production systems. **GEOTECH 2** contains fully water soluble, film forming corrosion inhibitor components

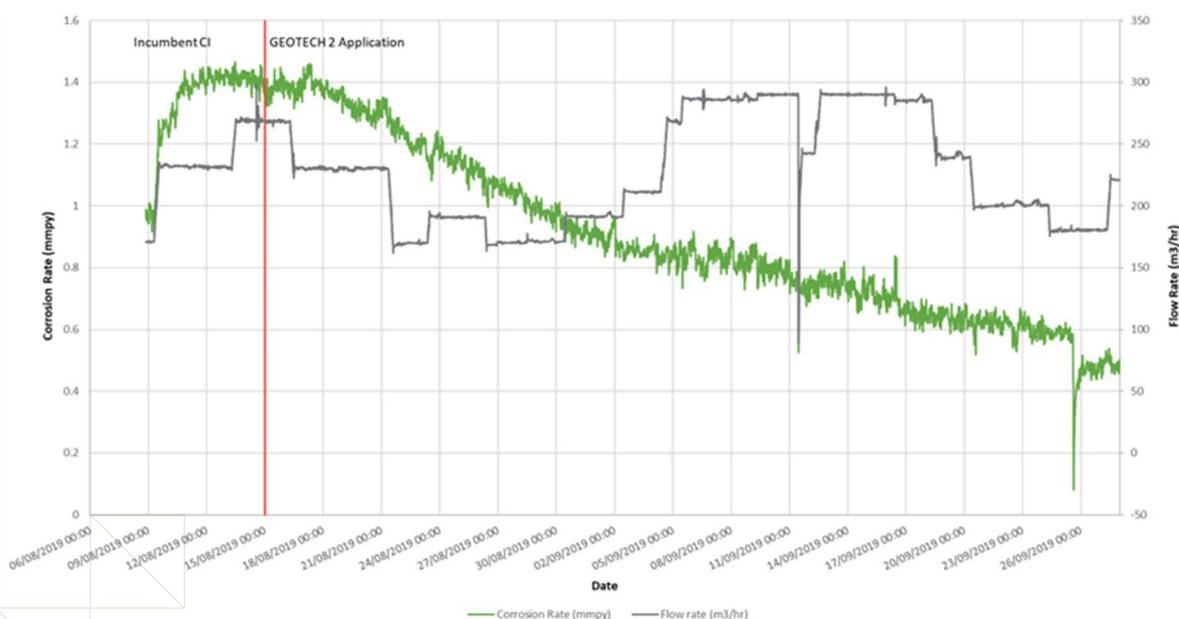
specifically developed to be non-gunking. A scale inhibitor dispersant component is also present to prevent scale formation and solids agglomeration.

Application

A geothermal facility in the Netherlands was experiencing increased corrosion rates and injection well pressure spikes while using a conventional "oil field" corrosion inhibitor product.

Roemex chemists proposed and applied **GEOTECH 2** via continuous injection at a dose rate of 12 ppm.

Results & Discussion



Following application of **GEOTECH 2**, corrosion rate decreases by over 50 % compared to the incumbent "oil field" type in-hibitor. Due to the full water solubility of **GEOTECH 2**, there was no increase in injection well pressure or organic deposits observed in the filters. In addition to improving corrosion inhibition, no CO₂ application was required to reduce the pH of the geothermal brine with a considerable reduction in operating costs. This acidifying effect was a requirement to improve the solubility of the previous corrosion inhibitor.

Following the trial, the client advised of increased well injectivity since switching to **GEOTECH 2**. The improved water solubility of the product has demonstrated a reduced potential to form "gunk" within the well.