

## **BETTER UNDERSTANDING THE HYDRAULICALLY FRACTURED SHALE ECOSYSTEM**

**We are delighted to announce that Rawwater will be attending the 2018 Reservoir Microbiology Forum (RMF) at the Energy Institute, London on Wednesday, 31st October 2018.**

During the forum, our long-standing academic collaborator, Dr Sophie Nixon, NERC Research Fellow at the School of Earth and Environmental Sciences, University of Manchester, will present research that sheds light on the potential for microbial biofouling during shale gas extraction.

The microbiology of oil reservoirs is well established, and biocontrol strategies exist to mitigate the effects of deleterious microbial processes on oil quality and equipment during production. By contrast, however, the microbiology of hydraulically fractured shales - and the potential for the creation of new ecosystems deep within the terrestrial subsurface - has only recently been uncovered.

Rawwater has built and operates what is widely considered to be the world's largest and most advanced pressurised bioreactor facility to study and evaluate microbiological souring in simulated reservoir conditions. In partnership with the Natural Environment Research Council (NERC), we will be supporting Dr Nixon and her team through the development of new bioreactor technologies and testing protocols designed to replicate the pressures, temperatures and chemistry associated with shale gas extraction. Through the subsequent collection of bioreactor data, our aim is to better understand the likelihood of deleterious microbial activity (biofouling) during shale gas extraction, including how to minimise environmental impact.