This is a data repository for journal paper “Laboratory Investigation of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery”, which has been submitted to the Journal of Transport in Porous Media for publication.

This data repository presents the comparison of the injectivity of surfactant solution and brine following the same amount of gas injection after foam. The foam qualities in these two cases are the same. The surfactant solution and brine has the same salinity, and are injected at the same volumetric flow rate (0.5 ml/min). Details of the experiments can be found in the paper mentioned above.

As shown in Fig. 1, the pressure gradients of all the three sections are similar in the two cases, although the plateau lasts longer for the case of surfactant solution injection.

![Figure 1](image1.jpg)

**Figure 1.** Pressure gradient during liquid injection following a period of gas injection after 0.95-quality foam. (a) Surfactant solution injection. (b) Brine injection.

CT scans are taken to study the flow behaviour during liquid injection. The scans are taken at roughly the same time in order to compare the flow behaviour during the surfactant solution injection and brine injection. As shown in Fig.2, injecting surfactant solution and brine after similar amounts of gas shows similar behaviour. Liquid flows through the whole cross section near the inlet, then fingers through part of the cross section.

![Figure 2](image2.jpg)

**Figure 2.** Water-saturation profile along the axis of the core during liquid injection after a period of gas injection. (a) Surfactant solution injection. (b) Brine injection. From left to right in each sequence, more liquid is injected.