



The Belchen motorway tunnel experienced in the 40 years since its completion in 1970 repeatedly floor heaves and swelling-induced damages. In the period 1998 - 2001 a 400 m long experimental adit was constructed beneath the main tunnel. The basic idea was that this adit, assisted by additional drainage boreholes, would cause a draw-down of the water table, thus withdrawing the water from the swelling zone beneath the floor of the road tunnel. This experiment remained however unsuccessful up to now.

**Figure 2. Experimental drainage adit beneath the Belchen tunnel (Amstad and Kovári, 2001).**