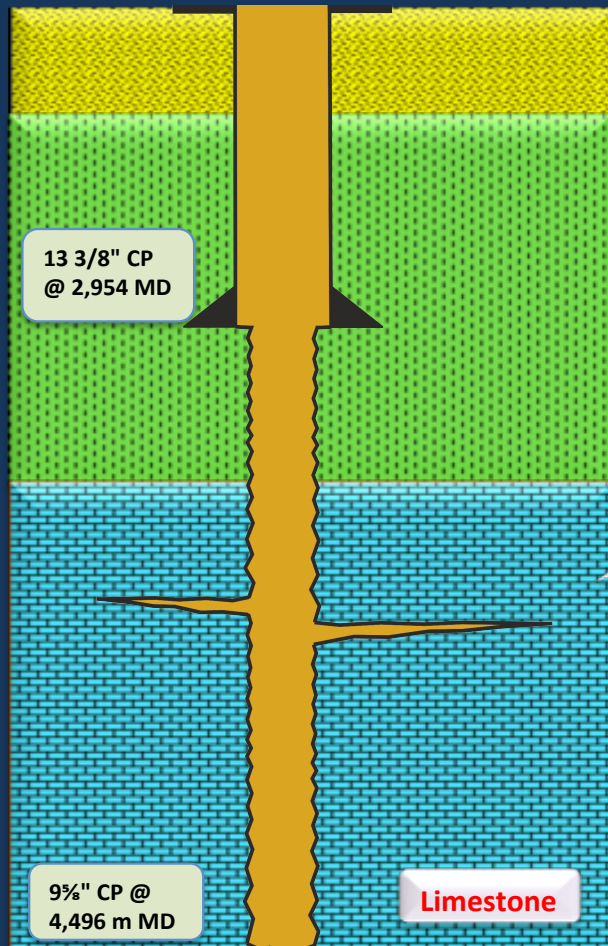


## A RECORD BREAKING DRILLING DEPTH - Austria



### The Challenge

The **Vienna Basin** has a history of lost circulation ranging from **continuous seepage to severe losses**. **Complete losses, pack offs and stuck** problems had caused **lost of many BHA's**. The magnitude of overpressures in combination with the expected losses is the greatest challenge in planning this well. The **9 5/8" casing cannot be set deeper than ± 3,600 m**.

### The Action

The **12 1/4"** hole was drilled from 2,954 m using a WBM (Glycol Polymer) of 1.57 SG. **Severe losses were encountered up to 30 m<sup>3</sup>/hr**. Active mud was pretreated with **5 ppb FRACSEAL**. **STOPLOSS** pills were also deployed for controlling high losses. Through a circulating sub, pumped 2 m<sup>3</sup> Hi Viscosity mud as lead spacer, followed by 6 m<sup>3</sup> of **50 ppb STOPLOSS** then 3 m<sup>3</sup> of Hi Viscosity mud as tail spacer.

### The Result

**Most losses were reduced by 90%**. **Shale stone (Gas Shale) was stabilised** without any sloughing. The hole was drilled successfully without having to run the contingent **11 1/4"** liner programmed to be set at 3,600 m. The cost saving for the elimination of this liner is approximately **EUR 2.0 million** (including the hole enlargement costs prior to running the liner). Drilling operation was performed successfully and the **9 5/8"** casing was run and cemented at 4,496 m, **which considered to be one of the deepest 9 5/8" casing point in Austria**. The well was TD at **6,020 M** using **only 3 casing strings** (previously had to use 4 or 5 casings). The final hole size (**8 1/2"**) was drilled without having to reduce the mud weight.