Analysis of mine subsidence and dynamic influences for Foundation Coal - USA

Costumer:
Foundation Coal Inc. – USA

Job description:
Due to harmful influences on the ground above mining operations in the eastern United States (Appalachians) a comprehensive study on the prognosis of mining impacts and impact mitigation has been commissioned by Foundation Coal Inc. An important focus of the study was to investigate the influence of operation dynamics (face retreat rate and rate variations). The findings from this study have been used to built up a comprehensive subsidence prediction software.

Services:
- Extensive studies and research on mining induced movements and prediction methods used in Europe and North America
- Study on the applicability of the methods with special emphasis on the influence of face retreat rate (including operation stops, strata dynamics)
- Forecast of the expected ground movements and deformations including movement dynamics (subsidence, slope, displacements, curvatures and strains and corresponding rates and accelerations) using DMT’s 4D Subsidence software
- Technical and scientific reporting and consultation to reduce negative mining impacts

Subsidence prediction result

Comparison of measured and calculated slope values for a point on the surface during undermining