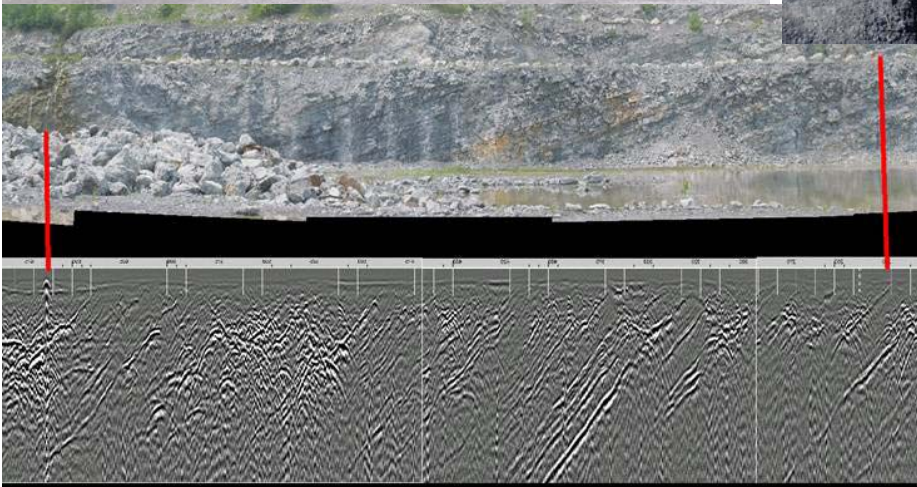
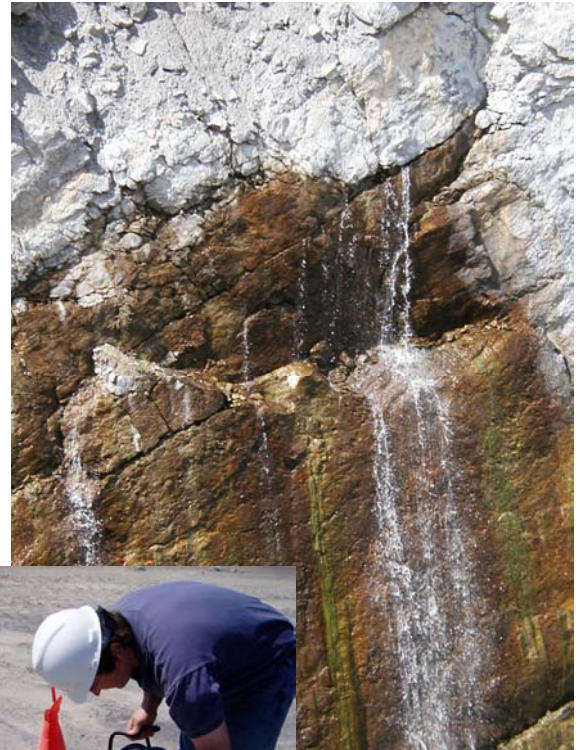


SUBSURFACE IMAGING



Water Infiltration Investigation - Limestone Quarry

A large limestone mining client was experiencing massive inflows of water into their quarry floor from an adjacent river. An extensive GPR survey consisting of over 9 lineal miles of data was performed in order to ascertain the nature of the pathways in the rock and pathways for the water flow. A novel approach involving the simultaneous collection from 100 MHz bistatic and 200 MHz monostatic antennae was used to maximize efficiency and balance the resolution of the data versus depth of penetration. Based partly on the data from the GPR survey, exploratory drill holes were located, a model of the geologic characteristics of the infiltration pathways was developed, and river bed filling of the karst features was executed in concert with a land-based grouting program. Documented reductions in dewatering from the project have exceeded 70%.



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