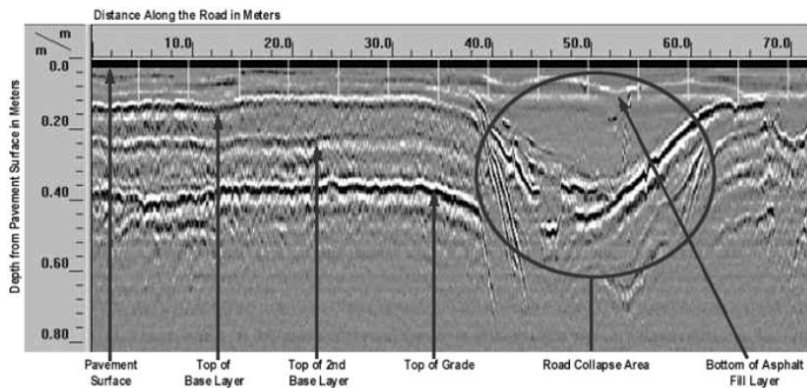


Geophysical Application

Roadway Evaluations with Geophysics

With ever tightening budgets, understanding roadway conditions, requires a focused approach. Quality Geophysics provides innovative application of **ground penetrating radar** (GPR) provides an effective subsurface assessment tool.

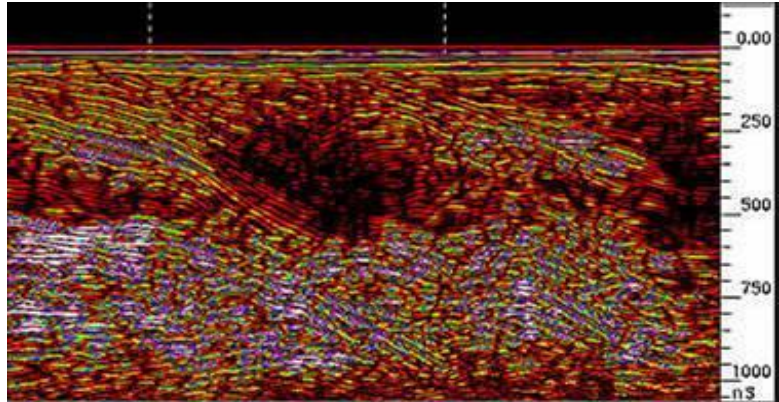


Record Complements of Geophysical Survey Systems, Inc.

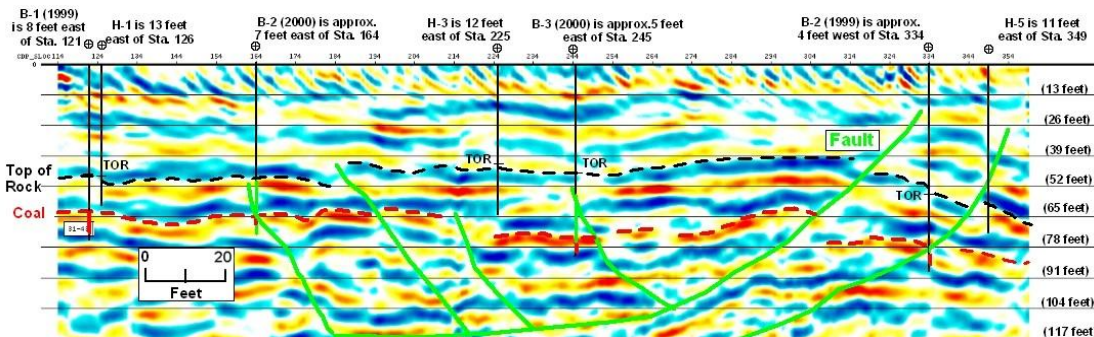
Using high-resolution antenna, with state of the science capabilities, Quality Geophysics has developed a number of tools to help highway engineers understand what is occurring below existing roadways. One such application permits evaluation of roadway layers including, asphalt thickness, base material thickness and continuity

as well as the condition of native materials below the road. Areas of change are identified easily and targeted for scheduled repair instead of emergency maintenance.

Uncertainty about sinkhole propagation across roadways is a concern in karst and formerly mined areas. Determining the limits of a sinkhole can be a frustrating adventure. However, with the use of geophysical methods the uncertainty can be minimized, and an effective solution developed. The features of concern can be identified with selective application of geophysical methods.



Quality Geophysics personnel have applied innovative **seismic reflection** methods to evaluate slip-planes in the assessment of highway stability along hillsides. Complex geology often obscure geologic conditions from even the most rigorous drilling program. However, when combined with geophysics,



the two approaches can provide complementary results.