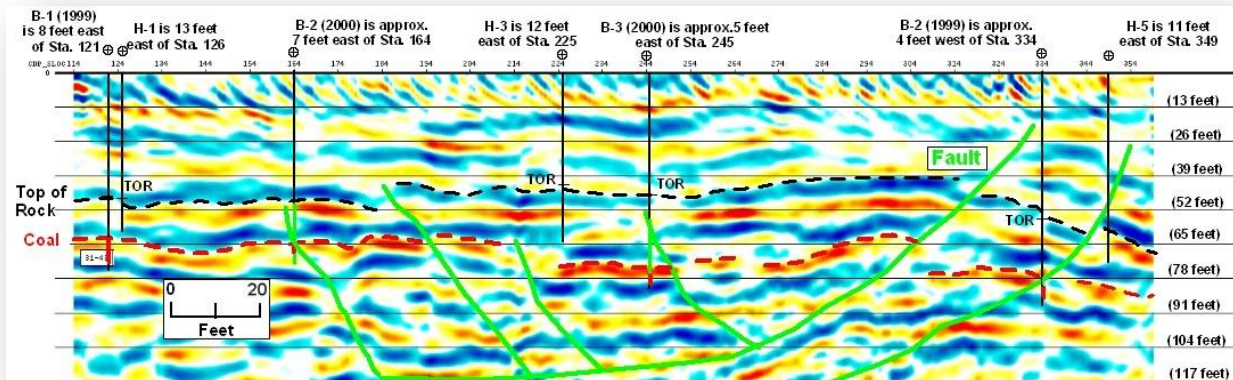


Geophysical Application

Seismic Reflection

A complement to seismic refraction, seismic reflection is typically designed to look deeper. Near-surface reflection-survey targets range from 50 feet to over 2,500 feet deep. Most near-surface techniques use methods developed for oil exploration. Seismic reflection for oil exploration, using very large energy sources, can go to 30,000 feet below the ground surface.



Near-surface seismic-reflection is most commonly used to identify lateral continuity or discontinuity across an area. These characteristics can be commonly used to identify

- Faults
- Coal seam
- Mine voids
- Deep top-of-bedrock

Quality Geophysics personnel typically follow ASTM D-7128 for shallow seismic-reflection surveys. Quality Geophysics performs optimum offset (or common offset) as well as common mid-point (also known as common depth point) reflection surveys. Walk away and noise testing are commonly performed at the beginning of a survey to establish the appropriate survey method, optimal acquisition parameters, and to verify the presence of seismic reflectors at the depths of interest for the project. Quality Geophysics is capable of processing seismic-reflection data in-house, or using long established industry relationships with specialty seismic processing companies.



Employing some of the most experienced geophysicists in North America, Quality Geophysics personnel are able to ensure the seismic cross-section developed for your project presents the best depiction of subsurface conditions. Quality Geophysics personnel are able to interpret the seismic data, establishing solid, unbiased geologic models of subsurface conditions to focus follow-on drilling activities. Quality Geophysics personnel have performed both compression velocity and shear velocity reflection surveys.