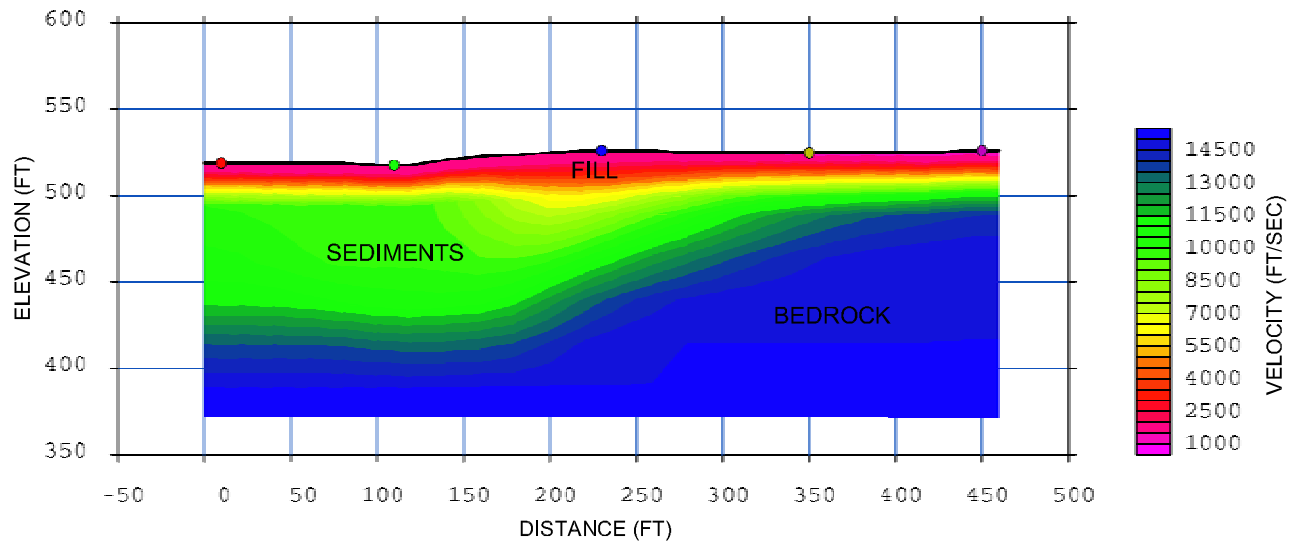


SEISMIC REFRACTION PROFILING



The seismic refraction method involves measuring the travel time of seismic energy from a seismic source to a number of receivers (geophones) placed on the ground surface in order to determine seismic compressional velocities with depth and laterally. Since there is a direct relationship between seismic velocity and the hardness of rock or degree of consolidation of sediments, seismic refraction profiles can be used to determine:



- Thickness of fill or sediment overburden
- Depth to rock
- Variability of sediments or rock
- Excavation characteristics (rippability)
- Location of faulting or other structural features
- Landslide delineation
- Geologic contacts

Seismic refraction surveys are routinely performed for:

- Foundation investigations
- Excavation planning
- Geohazard studies
- Quarry evaluations
- Hydrologic investigations
- Environmental/Remediation