

GEO 460 Lab 4: Seismic Refraction

You got a job! Your team has been asked by a mining company to conduct some field investigations and to write a report. The mining company is interested in mining some fluvial gravels that have a particular seismic velocity, which is indicative of a particular source material. The river system has two main sources of material that are transported as bedload. Mafic gravels have a different seismic velocity than do felsic gravels.

Your team will collect a seismic refraction survey along a river terrace/floodplain adjacent to the Mad River in northern California east of Arcata. Please provide a report summarizing your methods, results, and interpretations. Your client needs to learn the seismic velocity of these gravels.

The report will be 5-10 pages long, times new roman font size 12, and double spaced. Please provide a figure showing the first arrival times. Please provide a sketch map of the seismic array as it relates to the field site.