

Equipment Selection and Installation for Surface Microseismic Monitoring

Brad Artman¹

¹Spectraseis Inc., Houston, TX, USA

Abstract

The two main applications of (near) surface seismic monitoring are sparse arrays covering large areas on a semi-permanent basis, and dense arrays for high-definition measurements of individual stimulations. In either case, the same physical constraints associated with measuring the seismic wave field are applicable after defining the requirements for the system's needed capabilities. This presentation will discuss the importance of multi-component broadband sensors, and the relative merits of surface vs. shallow burial installation. Introduction The three main choices in designing a seismic monitoring are sensor type, installation method, and density of stations.