

Title: The Influence of Spatial Extent on Endmember Selection in Imaging Spectrometer Data

Abstract: The selection of endmembers based on imaging spectrometer data is a very important step in the process of identifying and unmixing image pixels. Furthermore, this process is highly variable and very dependent on the scenes spatial extent. An example of this variability is shown for a scene from Cuprite, NV. The results indicate that care should be taken when deciding on the area of interest especially in cases where the scene will be compared to other dates. From these observations, future studies will focus on the spatial and spectral relationship of endmembers, especially those that are not seen in the extremes of the N-dimensional scatterplot.