

# Resampling Lab Spectra to M3 Wavelengths

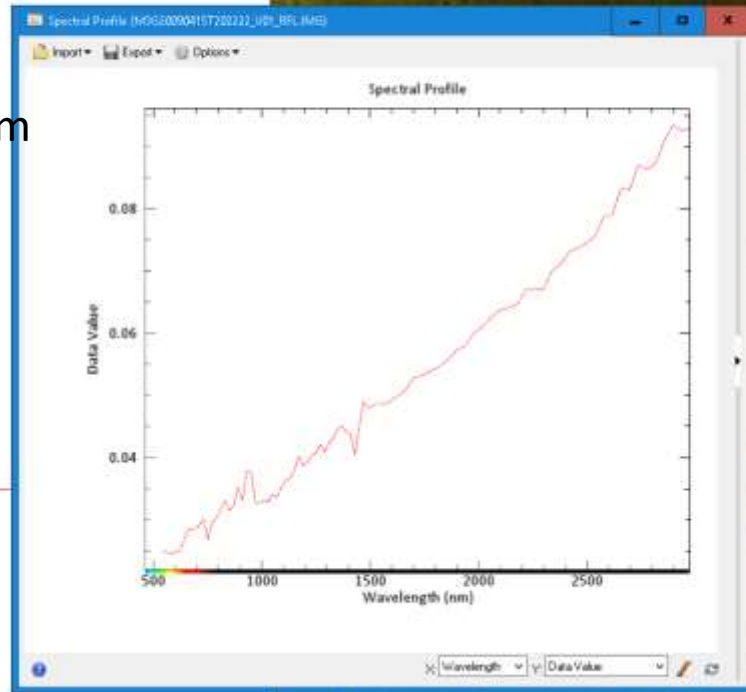
Ray Arvidson

PDS Geosciences Node

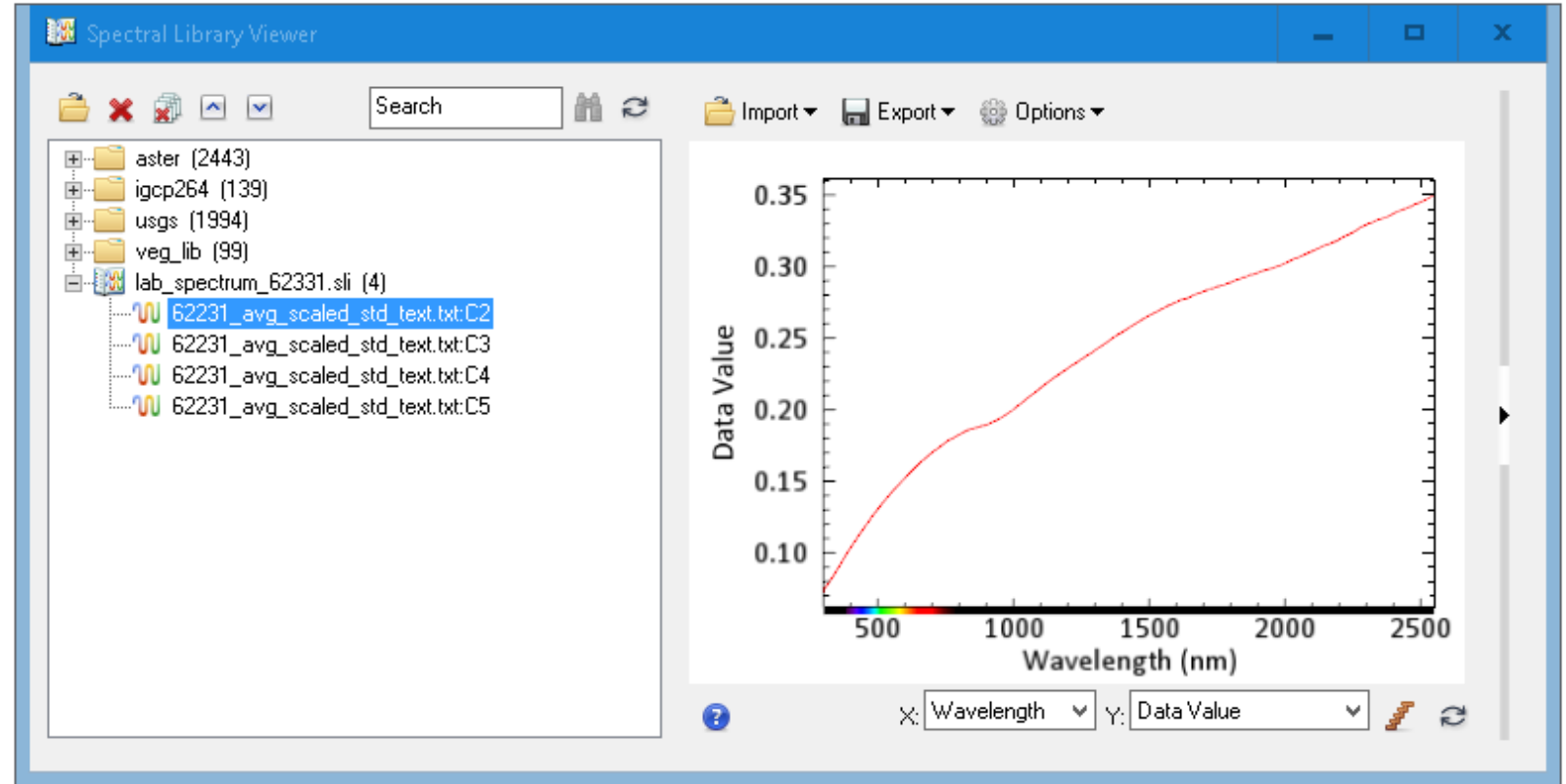
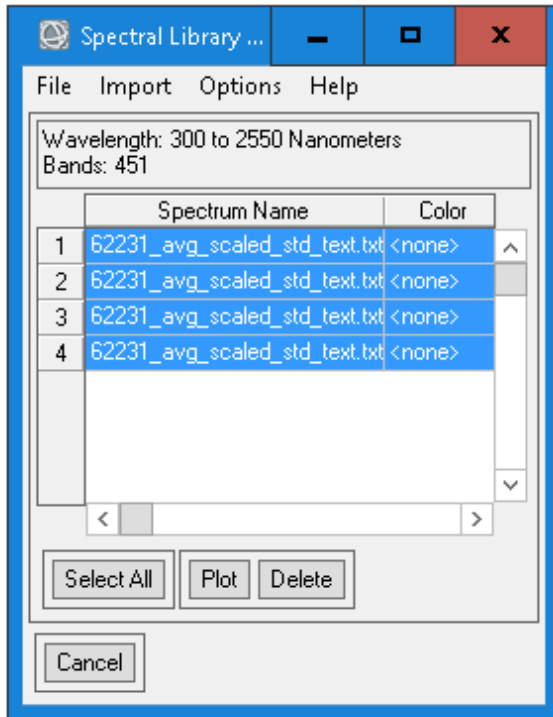
Washington University in Saint Louis

11/13/17

This is an ENVI5.4 view  
Of M3 image and spectrum  
For spot shown by cross  
Hairs.

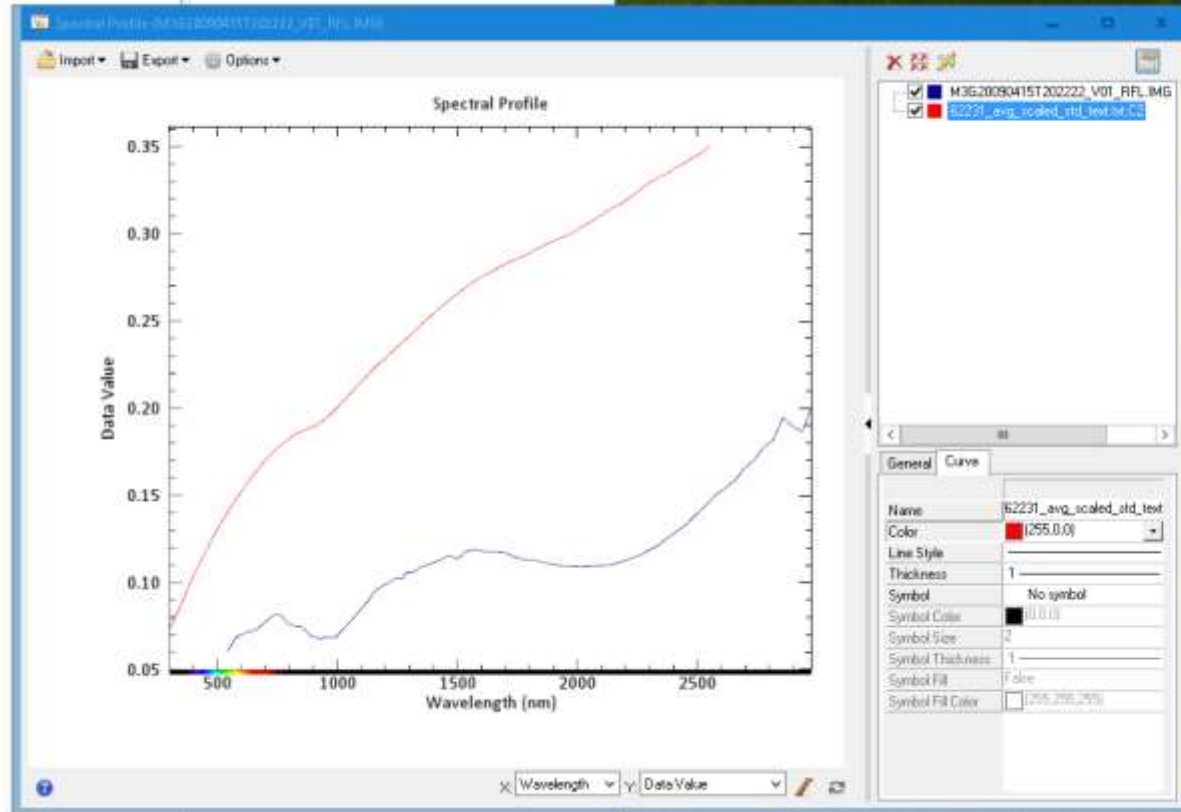
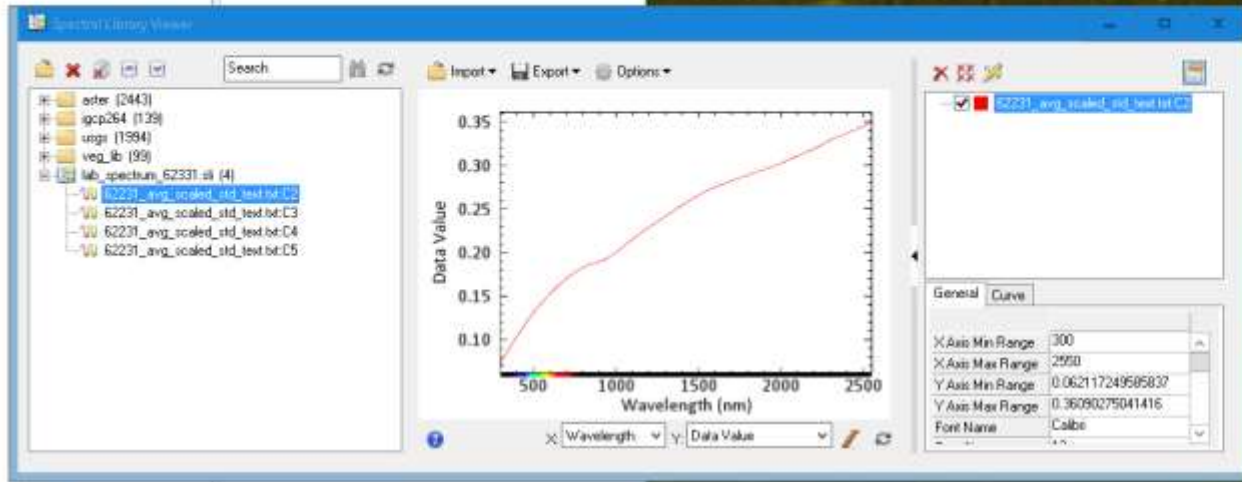


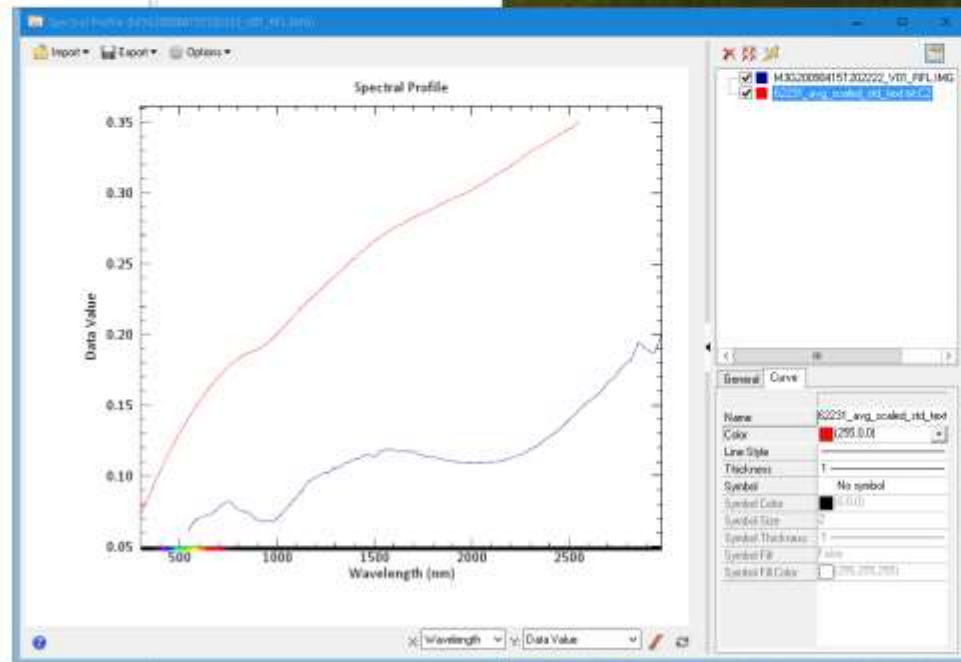
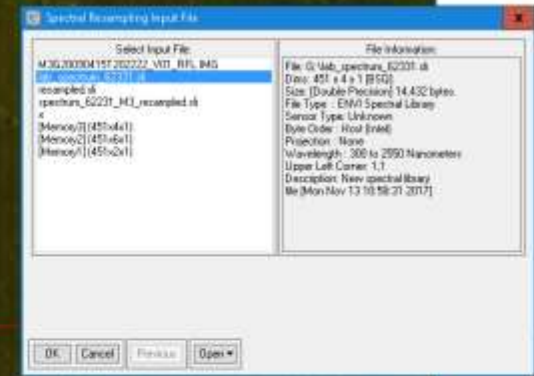
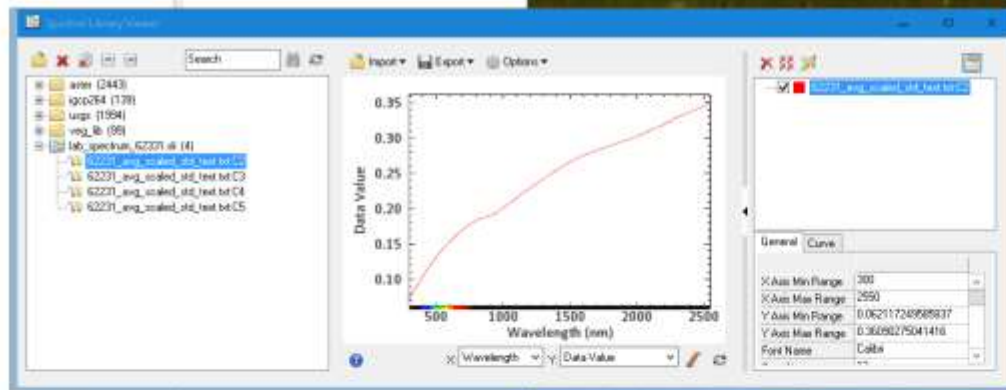
Use ENVI spectral library builder and 62331 txt file to build the spectral library. First column is wavelength  
Second is the reflectance value. Plotted below.



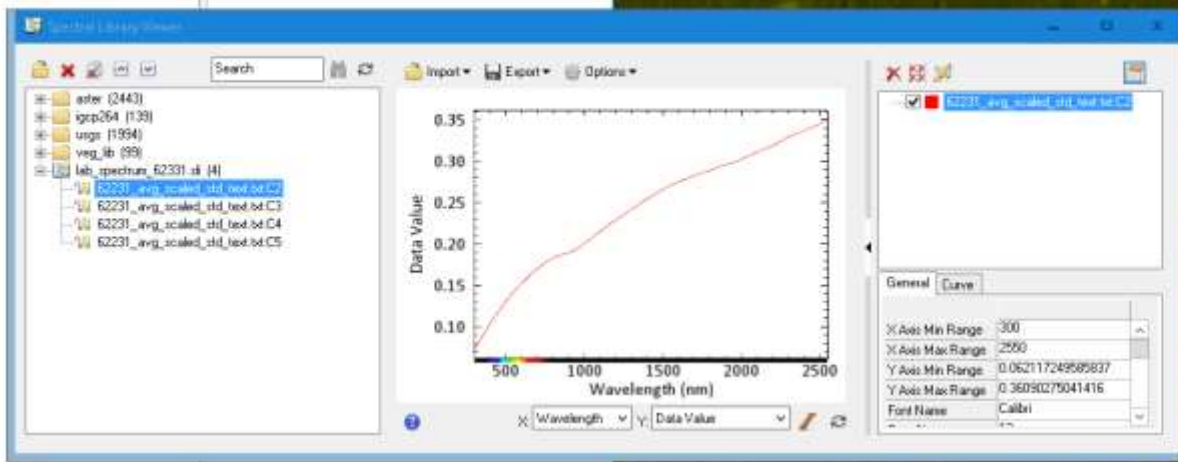
Dragged the Lab spectrum into the M3 Spectral plot. New interesting Location with Pyroxenes for M3

Now we need to Resample the Lab spectrum to M3 wavelengths

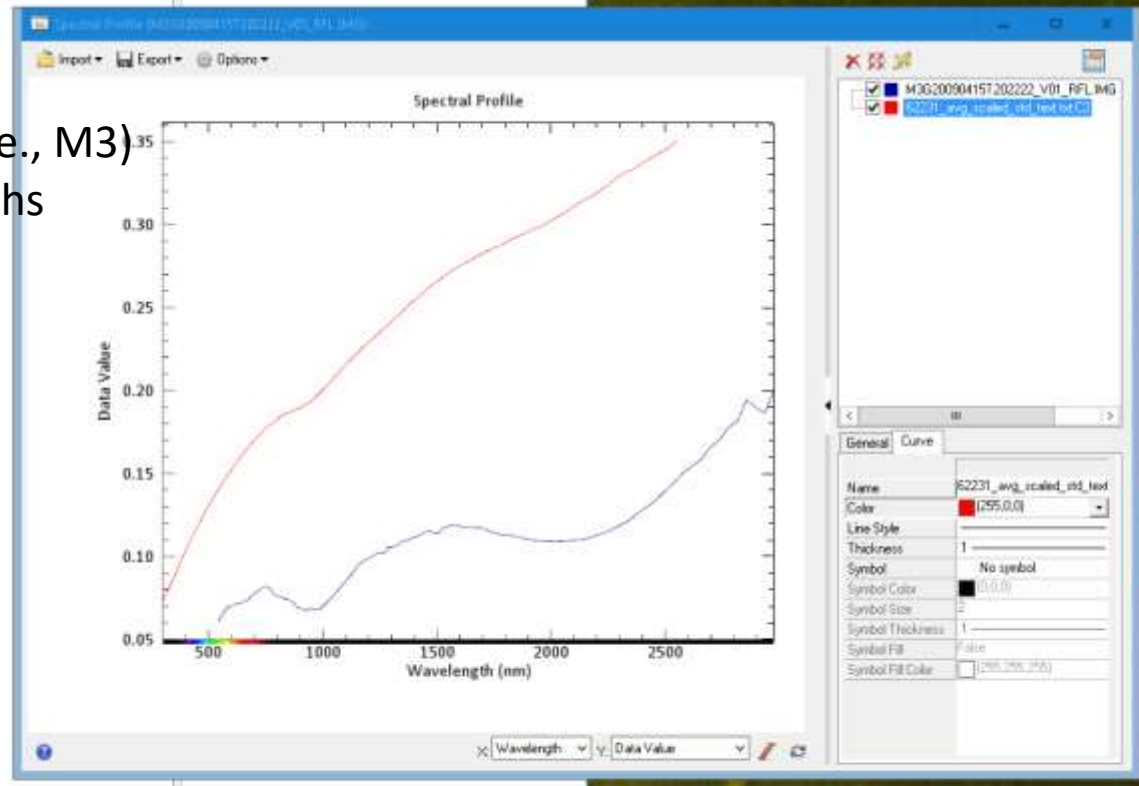


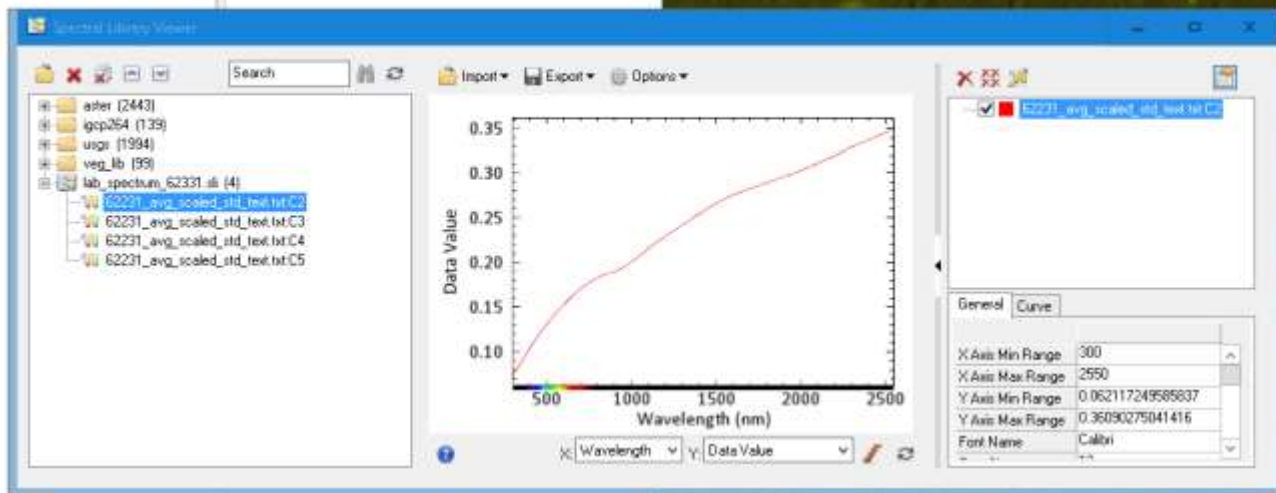


Use spectral resampling function  
Choosing lab spectrum to resample,  
i.e., as input file



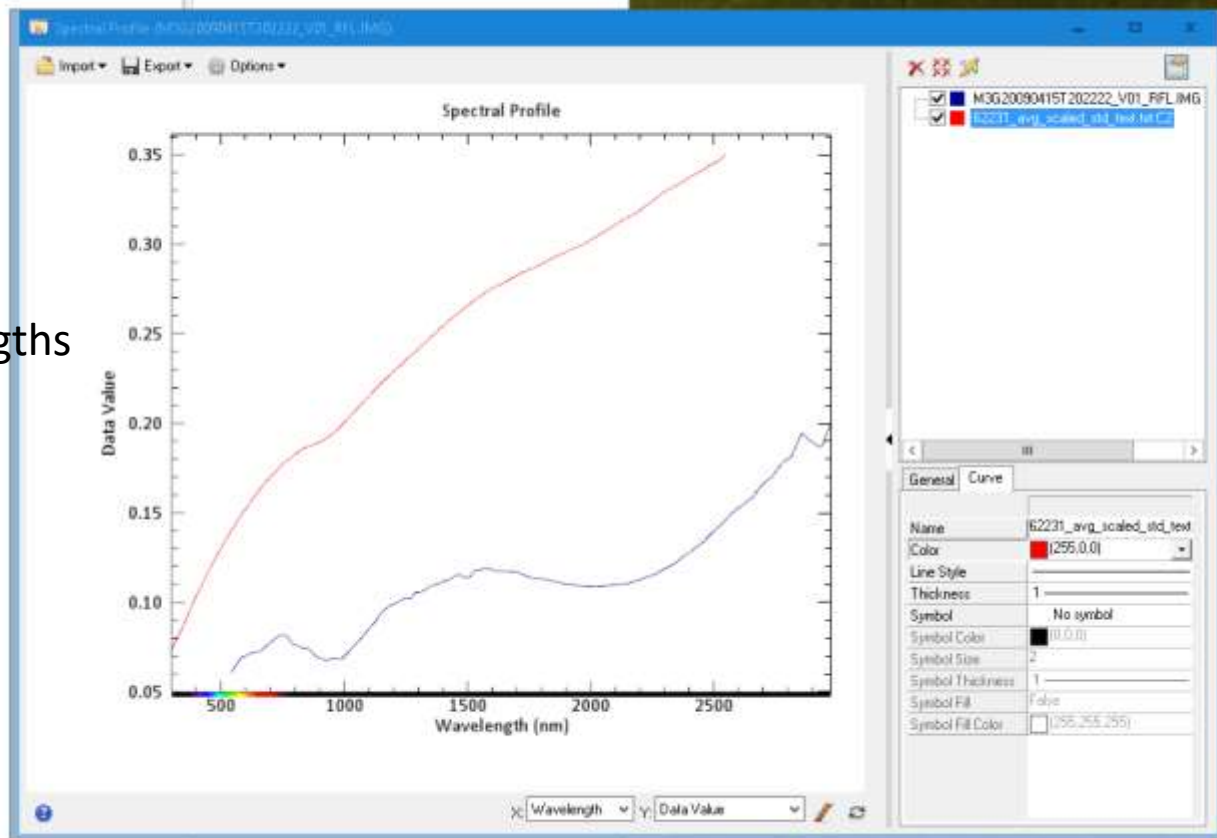
Choose resampled  
Output file name and  
Also input data file (i.e., M3)  
Containing wavelengths  
For resampled  
Lab spectrum

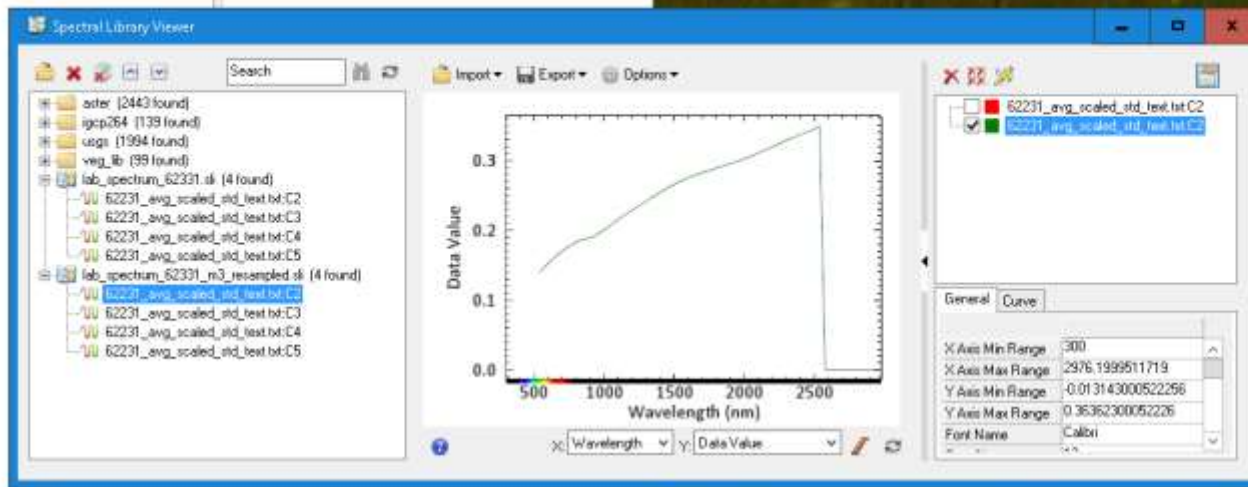




This dialog box is titled 'File Containing Output Wavelength'. It has two main sections: 'Select Input File:' and 'File Information:'. Under 'Select Input File:', a list of files is shown, with 'M3G20090415T202222\_V01\_RFL.IMG' selected. The 'File Information:' section provides details about the selected file, including its path, dimensions, size, file type, sensor type, byte order, projection, wavelength range, and description. At the bottom, there is a 'Spectral Subset' field showing '83/85 Bands' and buttons for 'OK', 'Cancel', 'Previous', and 'Open'.

Next page  
Showing  
Choice of  
M3 data for  
New wavelengths





Final result showing  
 Resampled spectrum  
 Alone and dragged into  
 Spectral plot from M3 data.  
 I would edit out the in the HDR label  
 Long wavelength data for  
 The resampled spectrum since  
 The original does not have data for  
 These wavelengths. Or set them  
 As bad bands.

And we are done!

