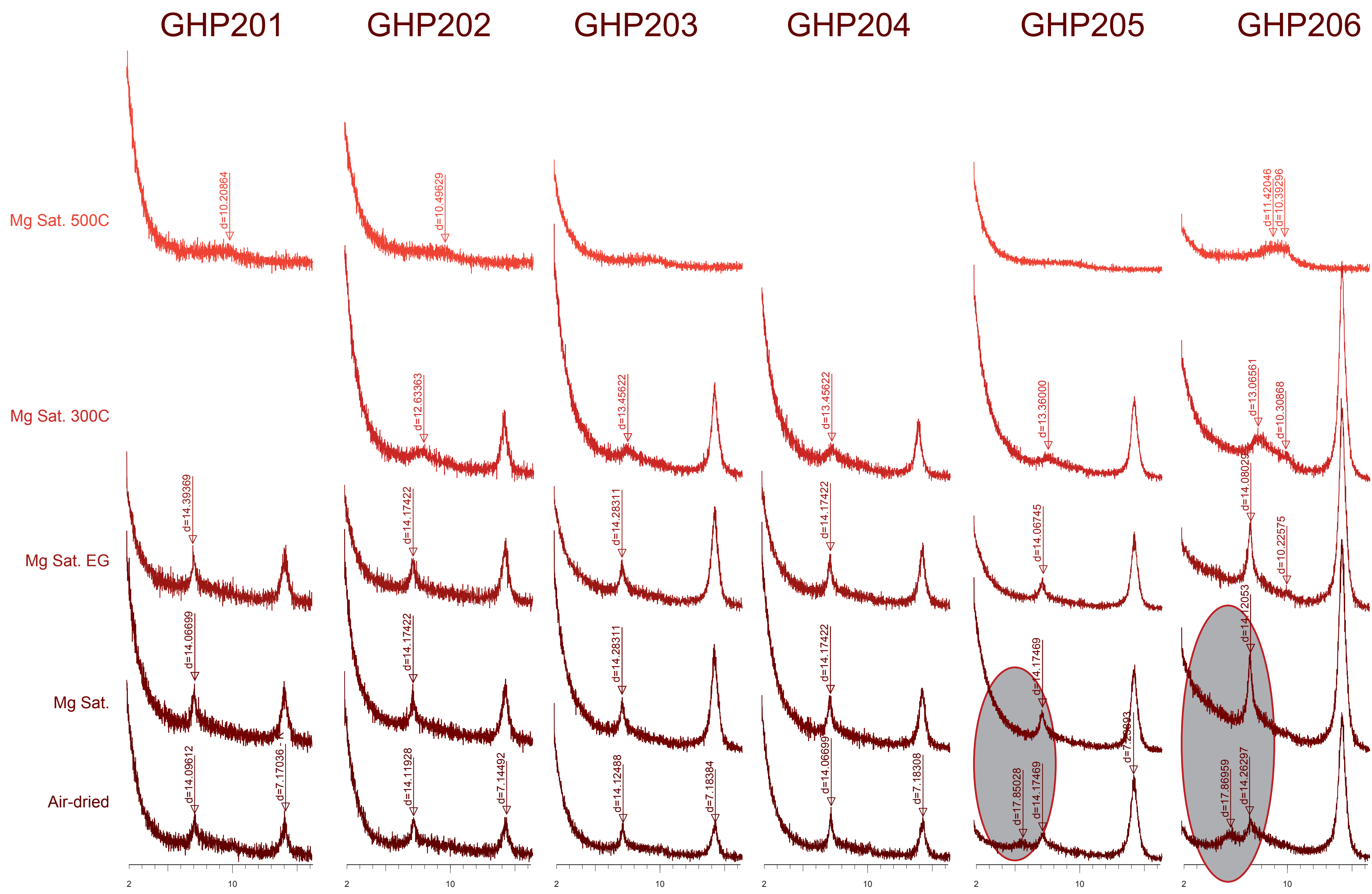


Preliminary interpretations of differences in the clay mineralogy of the Calhoun CZO between ‘pristine’ and eroded soils at the Long-Term Pine Plots

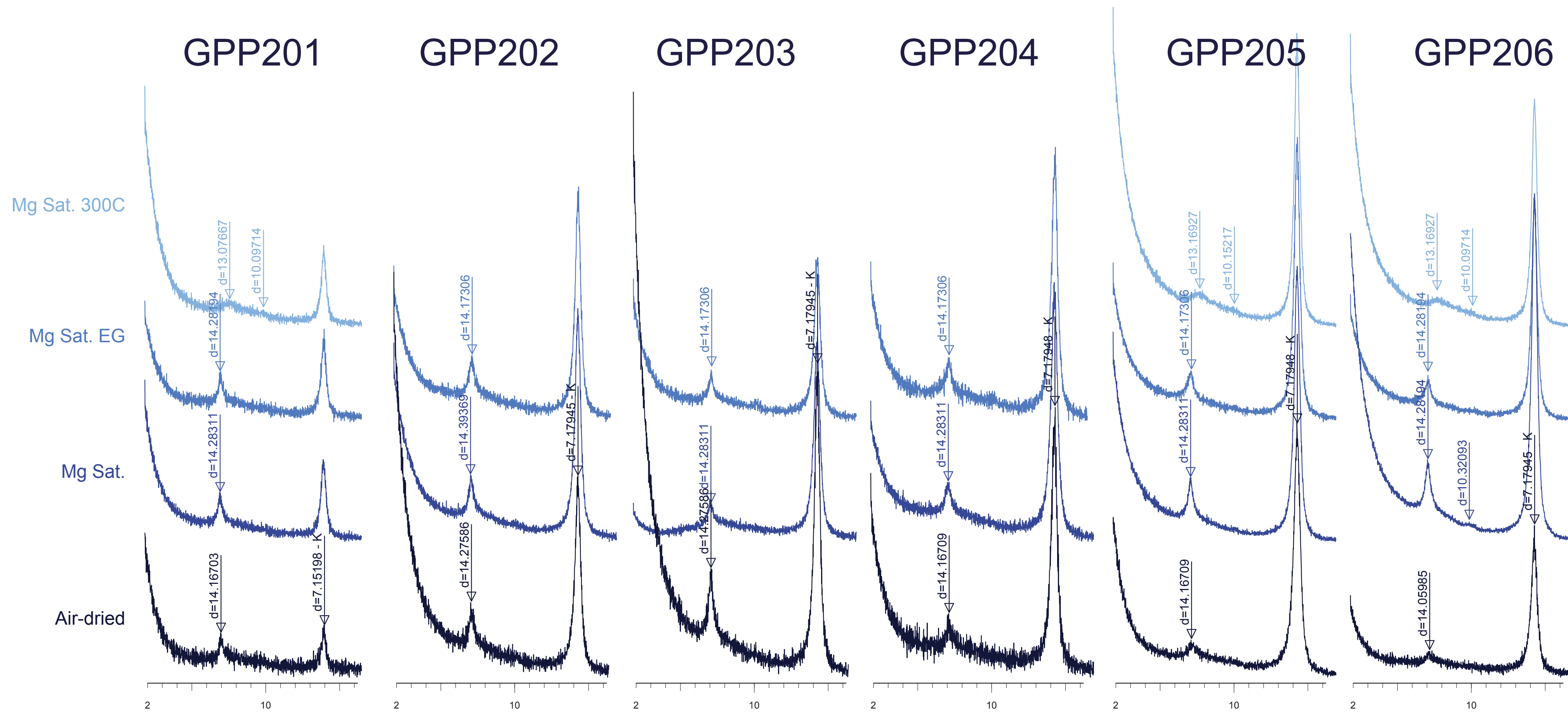
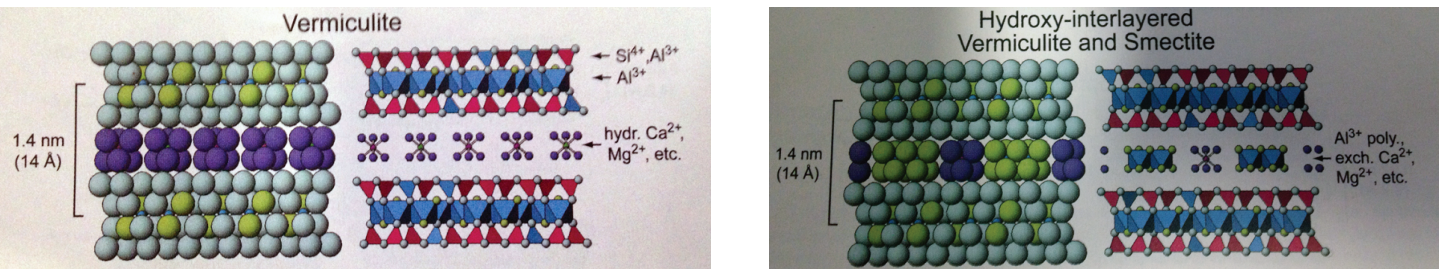
Jason C. Austin, Ph. D. University of Georgia
Paul A. Schroeder, Ph. D. University of Georgia



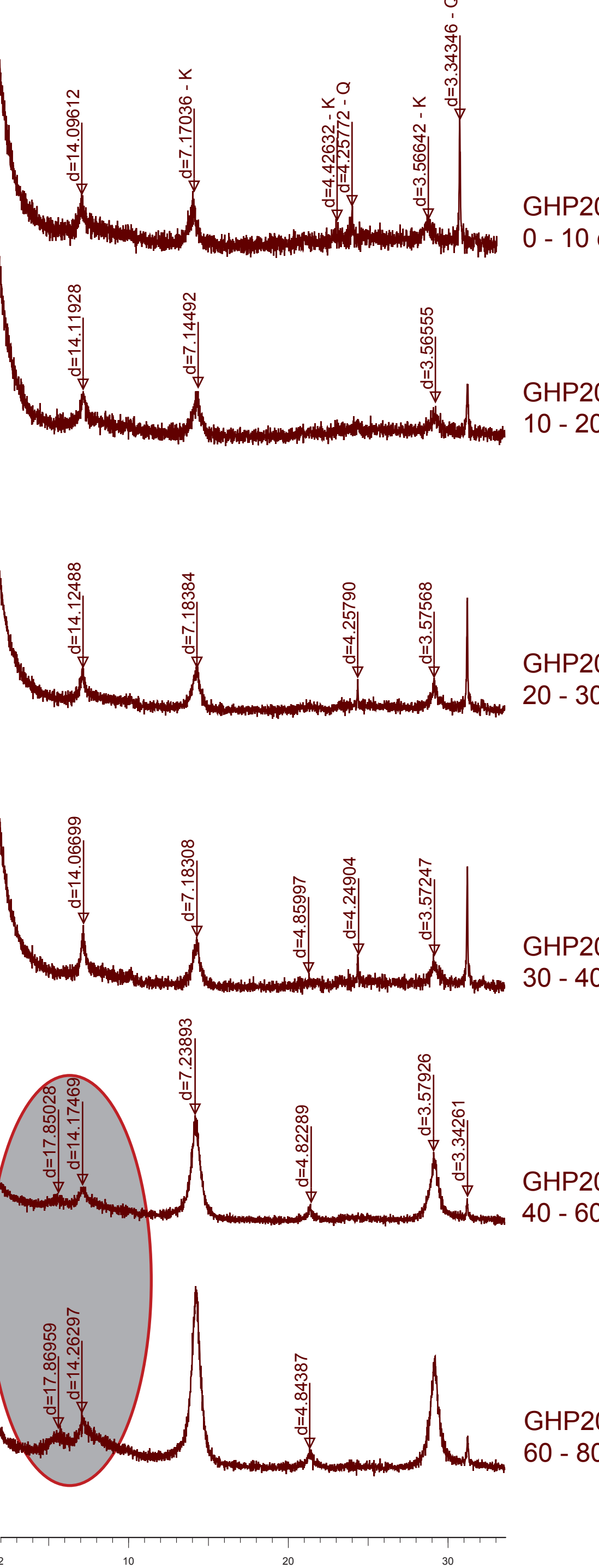
The air-dried ~18Å peak is provisionally identified as a vermiculite. This phase appears deeper in the **pine site** compared to the **hardwood site**.

Shift from ~18Å to 14Å with Mg²⁺ saturation and ethylene-glycol saturation and collapse to 10Å upon heating to 300°C confirms the 2:1 structure assumed to represent weathering product of primary minerals. Hydroxy-interlayered-vermiculite (HIV) and vermiculite (14Å) are present throughout each profile with origins coming from authigenesis and degraded biotite, respectively.

Greater abundances of HIV occur near the surface of the **hardwood site**. Gibbsite appears throughout the profile in the **pine site** and only at depth in the **hardwood site**.



Hardwood Site (GHP20x)



Pine Site (GPP20x)

