

Appendix to

Eolian sedimentation in central European Auel dry maar from 60 to 13 ka

Florian Fuhrmann^{1*}, Klemens Seelos¹ and Frank Sirocko¹

*¹Department for Geoscience, Johannes Gutenberg-Universität, Johann-Joachim- Becher Weg
21, Mainz, 55099, Germany*

*Correspondence to: Florian Fuhrmann (flfuhrma@uni-mainz.de; +49 6131 3929488)

Appendix RADIUS:

Early versions of the RADIUS Particle detection method (2004 – 2012) are based on predefined image segmentation intervals, usually 100 μm for grain size parameters (max. size, min. size, mean size) and 500 μm for secondary parameters like formfactor and elongation. Consequently, the number of segments is 1000 respectively 200 for a 10 cm thin section. Generally, the 500 μm values were given as mean values.

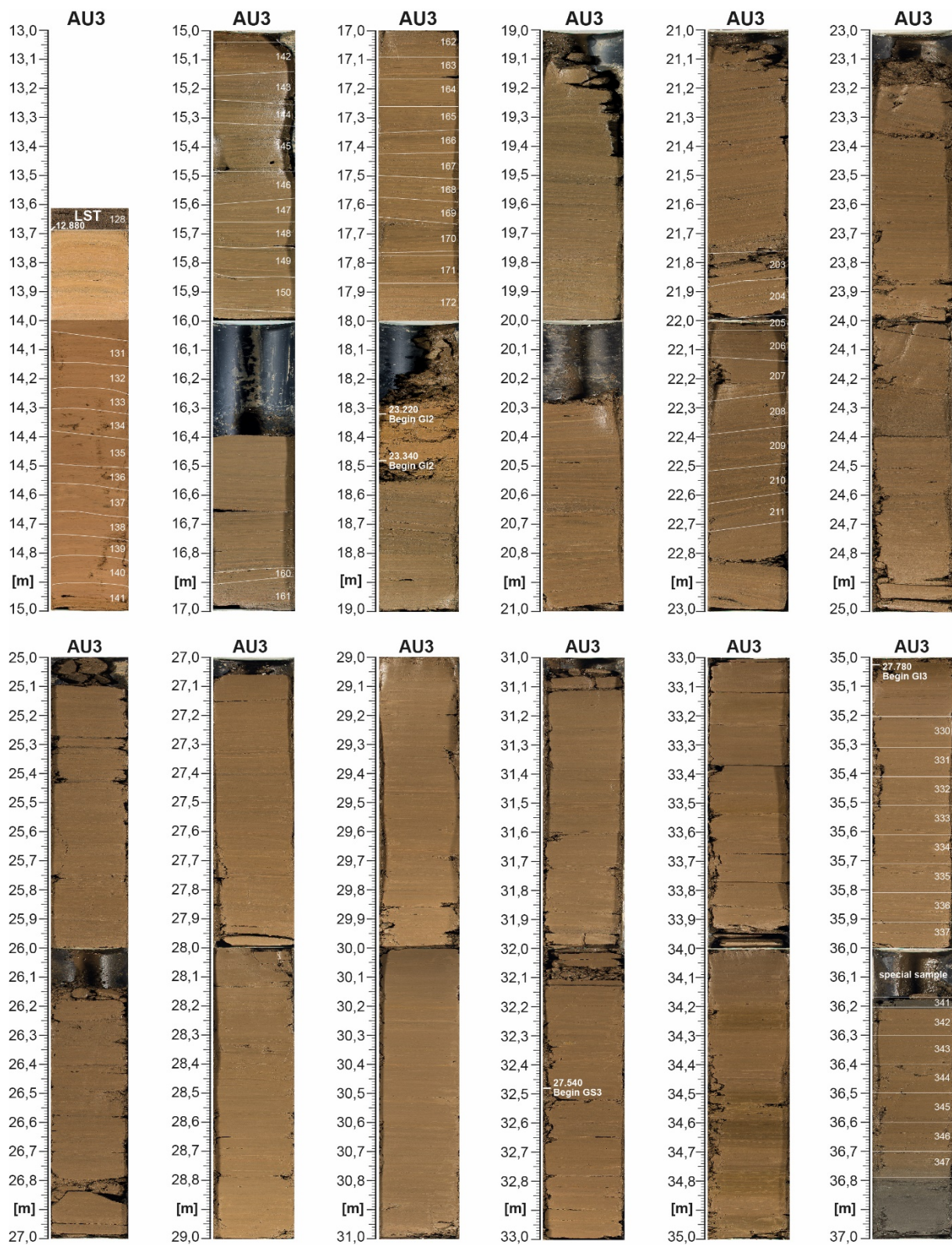
Newer versions of RADIUS (2012 -) does not use fixed segmentation intervals. Values and coordinates of every measured particle are written into a list and are imported into Matlab. Additionally, the RADIUS script allows the user to create individual segmentation interval. By activating the RADIUS segmentation algorithm every particle measurement value will be assigned to the appropriate segment of the thin section. This procedure allows a much higher variability for adjustments and interpretations.

Appendix Auel cores:

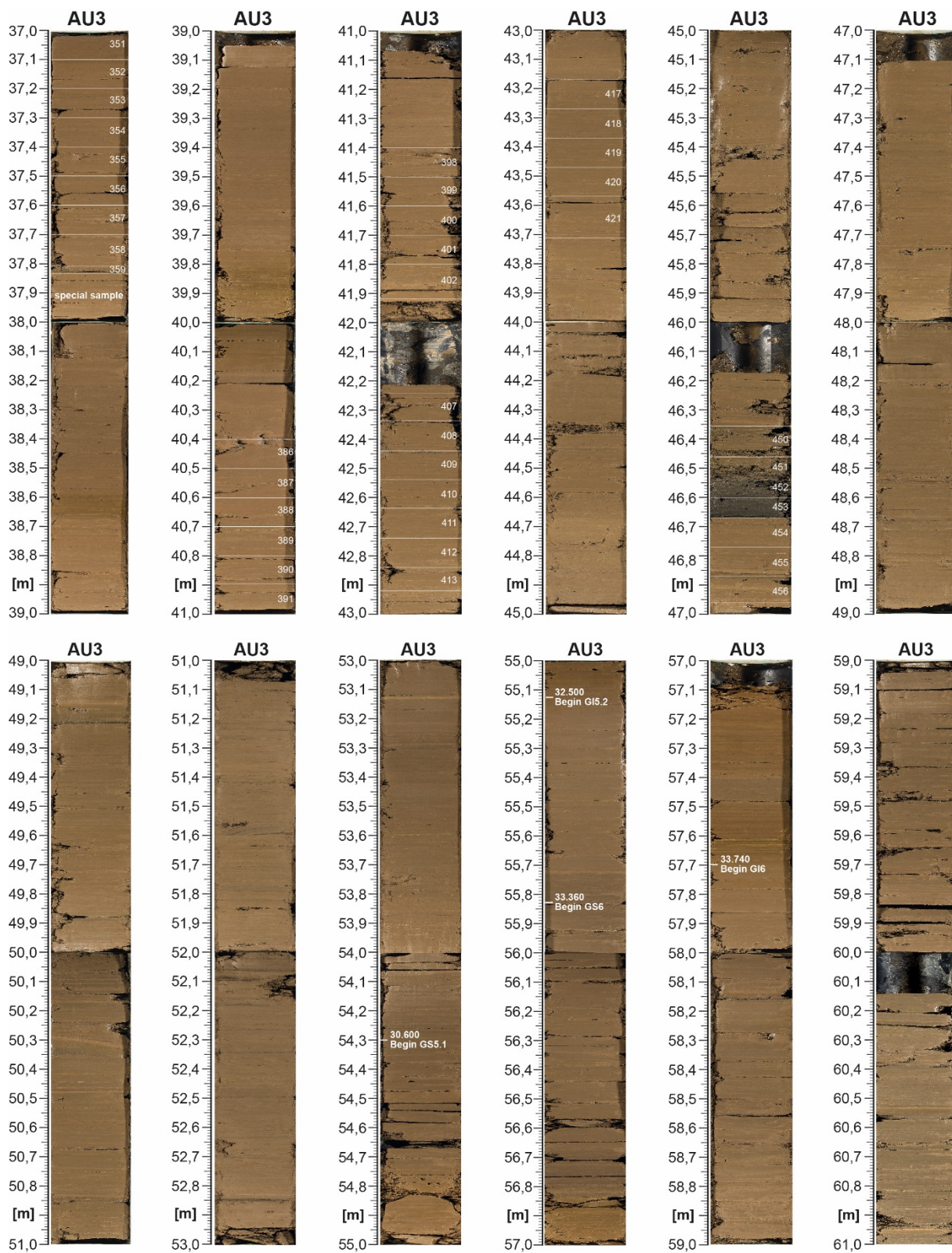
The lithologies of the ELSA Auel maar cores is documented in the appendix figures. Accordingly, AU3 and AU4 show mainly coarse silt and fine-grained sand with high sedimentation rates as typical sediments for stadials. Darker and seasonally layered sapropel, gyttia or diatom gyttia are typical sediments of interstadials. During the last cold maximum the stack is dominated by fine dust layers.

Appendix Figure 1 shows all core photos from AU3 cores with stacknumbers (10 cm each) and depth. The ages (all in yr b2k) given for GI and GS are taken from Sirocko et al., 2020.

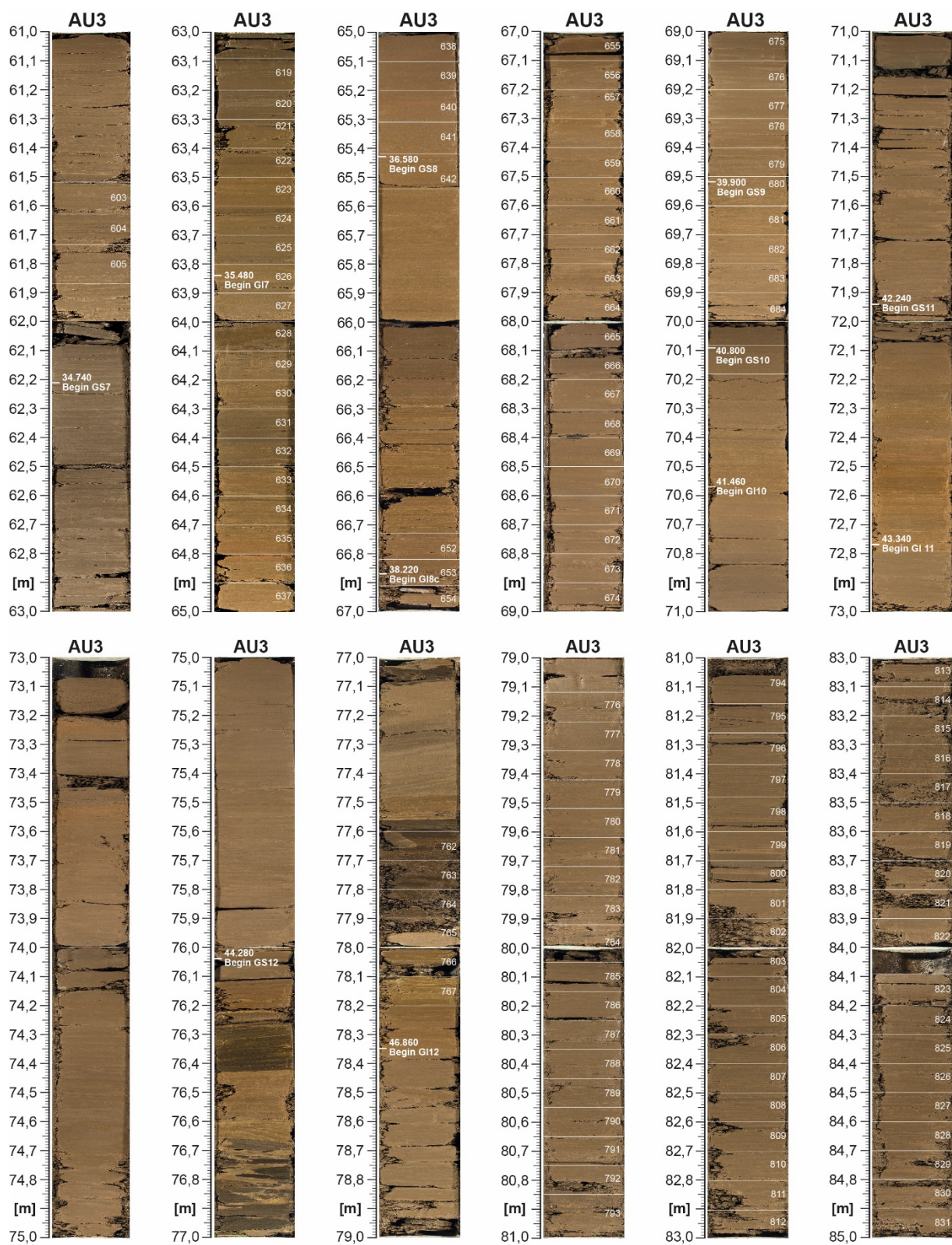
Appendix Figure 2 shows all core photos from AU4 cores with stacknumbers (10 cm each) and depth. The ages (all in yr b2k) given for GI and GS are taken from Sirocko et al., 2020.



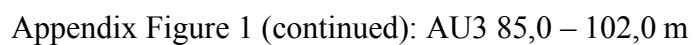
Appendix Figure 1: AU3 13,0 – 37,0 m

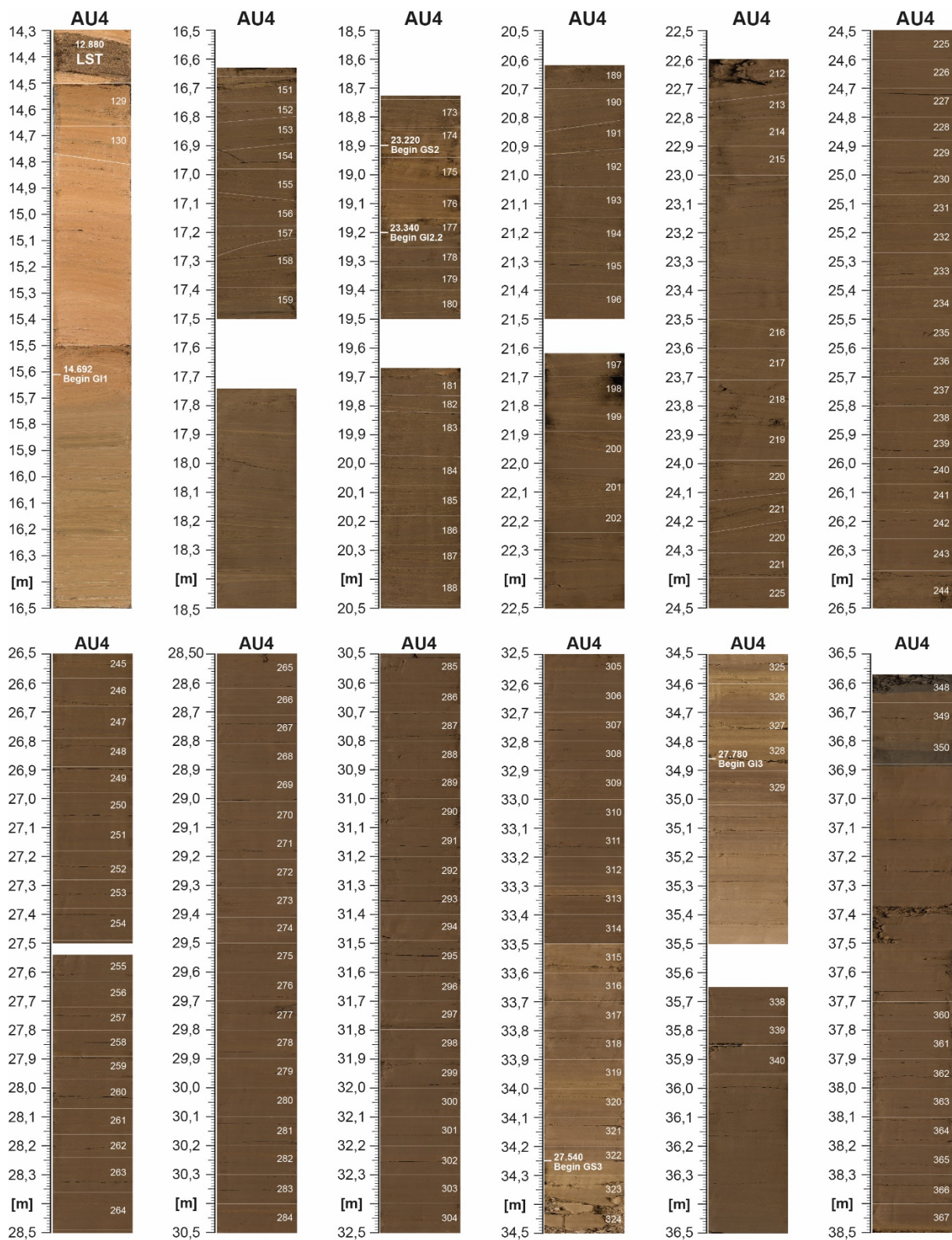


Appendix Figure 1 (continued): AU3 37,0 – 61,0 m

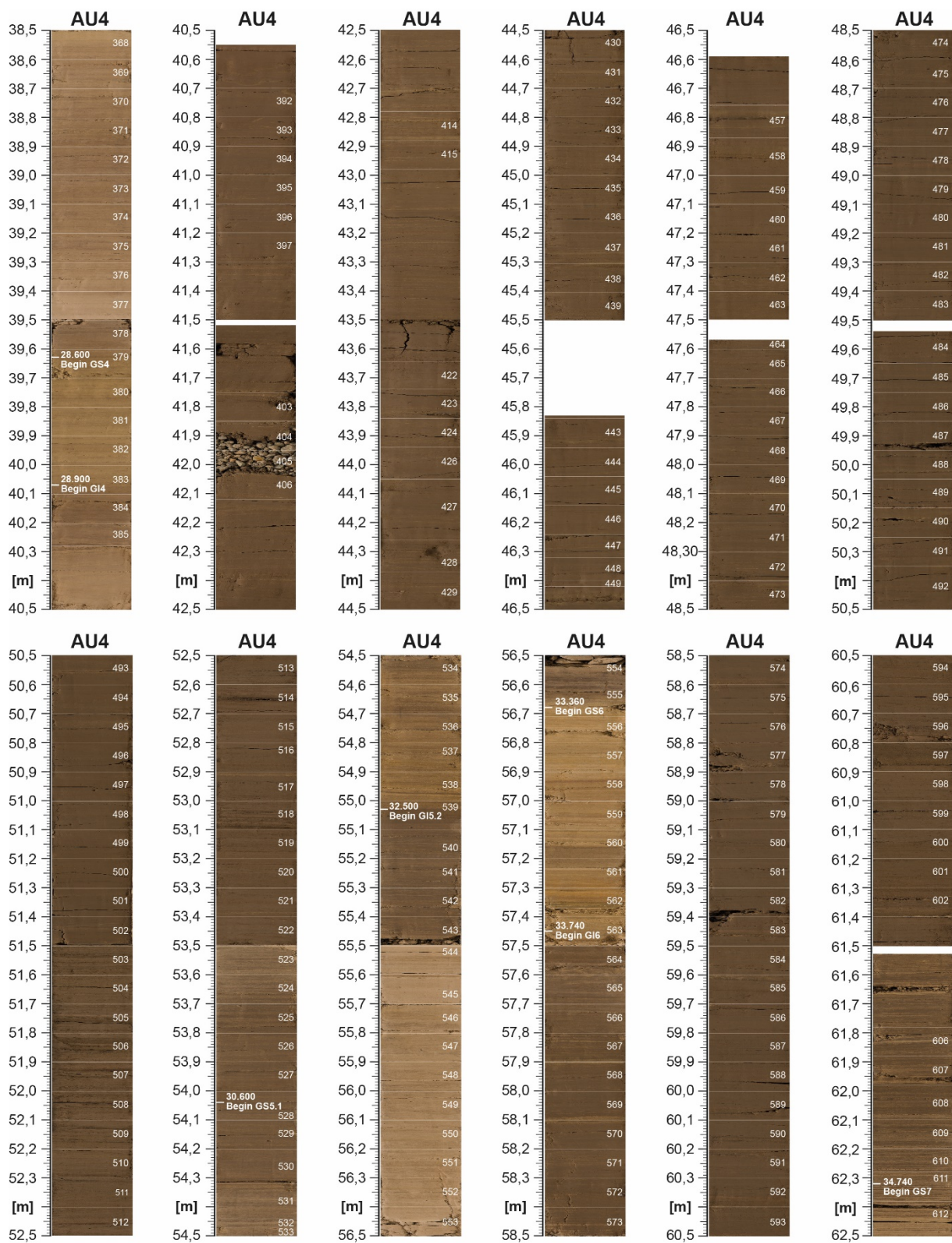


Appendix Figure 1 (continued): AU3 61,0 – 85,0 m

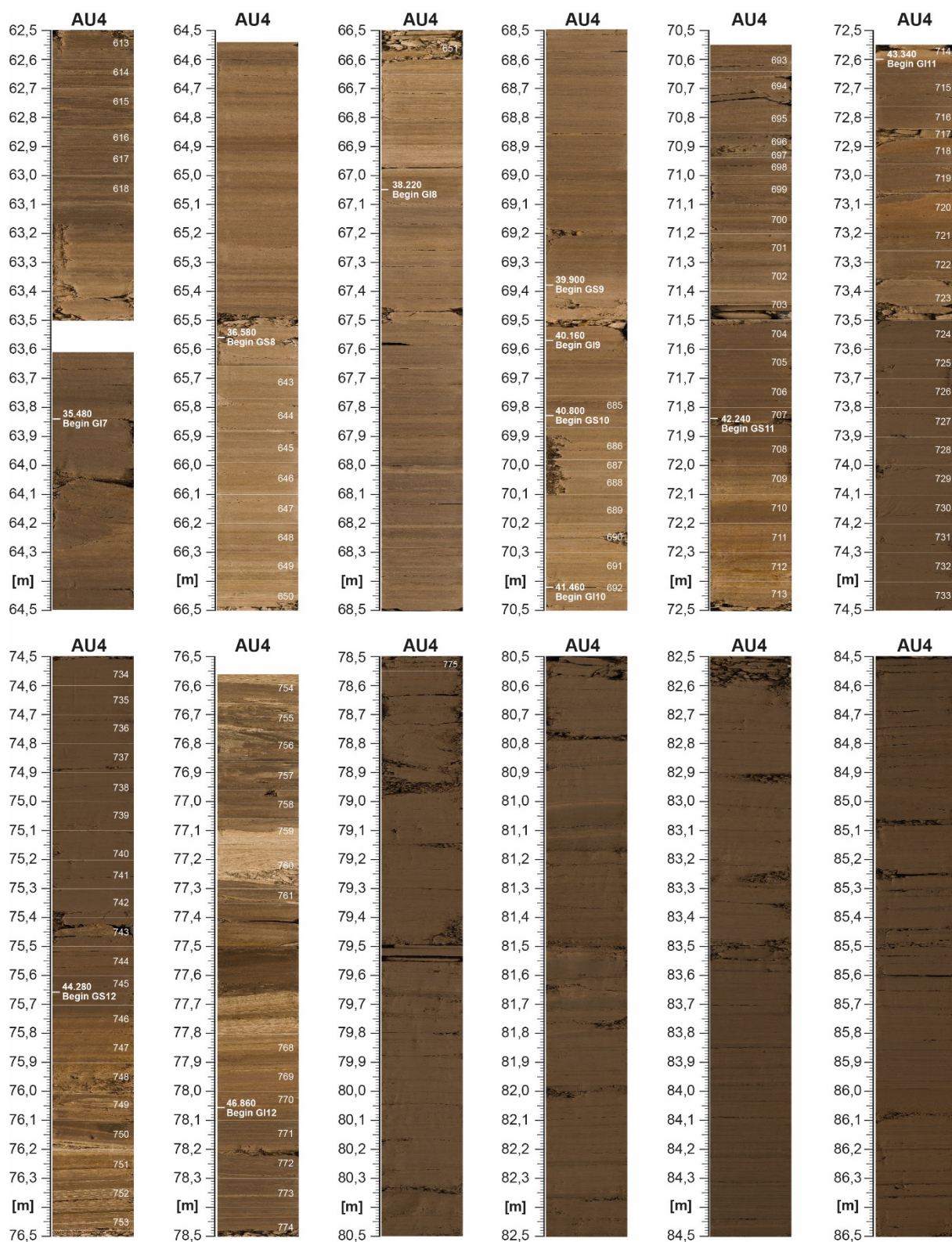




Appendix Figure 2: AU4 14,3 – 38.5 m



Appendix Figure 2 (continued): AU4 38,5 – 62,5 m



Appendix Figure 2 (continued): AU4 62,5 – 86,5 m

