

Table S1

A

depth (mcd)	age (ka)	event name	event recognition	event age
368.015	53952	?onset CIE H2?	Sluijs et al., 2009	Lourens et al., 2005
368.240	53992	top CIE-ETM2	Stein et al., 2006; Sluijs et al., 2008	60kyr ETM2 duration Stap et al., 2009
368.800	54052	onset CIE-ETM2	Stein et al., 2006; Sluijs et al., 2008	Lourens et al., 2005
369.255	54157	eccentricity max 1	Fokkema et al., in review	Fokkema et al., in review
369.735	54251	eccentricity max 2	Fokkema et al., in review	Fokkema et al., in review
370.235	54358	eccentricity max 3	Fokkema et al., in review	Fokkema et al., in review
370.725	54443	eccentricity max 4	Fokkema et al., in review	Fokkema et al., in review
381.410	55810	top CIE-PETM	Sluijs et al., 2006; updated here	Assumes 200 kyr CIE duration
386.855	56010	onset CIE-PETM	Sluijs et al., 2006	Zeebe and Lourens, 2019
399.630	57073	top C25n	Backman et al., 2008	Westerhold et al., 2008

B

interval bottom	interval top	sedimentation rate
top CIE-ETM2	?onset CIE H2?	0.56
onset CIE-ETM2	top CIE-ETM2	0.93
eccentricity max 1	onset CIE-ETM2	0.43
eccentricity max 2	eccentricity max 1	0.51
eccentricity max 3	eccentricity max 2	0.47
eccentricity max 4	eccentricity max 3	0.58
top CIE-PETM	eccentricity max 4	0.78
onset CIE-PETM	top CIE-PETM	2.72
top C25n	onset CIE-PETM	1.20

**Table S1.** Age model for the upper Paleocene - lowermost Eocene sediment section in IODP Expedition 302 Hole M0004A. **A)** Age-depth tie points from magnetostratigraphy, biostratigraphy, chemostratigraphy and orbital tuning. Assignment of H2 is uncertain. Recognized eccentricity maxima are numbered downwards from the base of ETM2. (Lourens et al., 2005; Sluijs et al., 2006; Stein et al., 2006; Backman et al., 2008; Sluijs et al., 2008; Westerhold et al., 2008; Sluijs et al., 2009; Stap et al., 2010; Zeebe and Lourens, 2019; Fokkema et al., 2024; in review). **B)** Calculated average sedimentation rates between the age-depth tie points.