

Supplementary document for

**THE CRETACEOUS OCEANIC ANOXIC EVENT 2 (OAE2) INTERVAL DOCUMENTED IN THE IONA-1 CORE, WESTERN INTERIOR SEAWAY, NORTH AMERICA: A RE-ANALYSIS**

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(Geological Society of America Abstracts with Programs. Vol 53, No. 6 doi: 10.1130/abs/2021AM-368790)

**Table 1** Duration, ages, and the interpreted nature of the proposed re-defined carbon isotope excursion (CIE) of the OAE2 interval documented in the Iona-1 core, TX, USA

C stages of CIE (m)	Duration	Ages (Ma)	Nature of CIE
C5 (~93 m to ~89 m)	~200 kyr	~93.9 — ~93.7	global
C4 (~101 m to ~93 m)	~350 kyr	~94.2 — ~93.9	
C3 (~107 m to ~101 m)	~280 kyr	~94.5 — ~94.2	
C3a' (~110m to ~107 m)	~170 kyr	~94.7 — ~94.5	regional
Total CIE <i>-short</i> (C3a'+C3+C4)	~0.8 myr	~94.7 — ~93.9	regional, subsequently global
Total CIE <i>-long</i> (C3a'+C3+C4+C5)	~1.0 myr	~94.7 — ~93.7	regional, subsequently global

The detailed analysis of the refined CIE interval of OAE2 for the Iona-1 core is summarized in the Supplementary Materials (*SM4 The expanded OAE2 interval in the Western Interior Seaway*) of the paper entitled “Enhanced ocean connectivity and volcanism instigated global onset of Cretaceous 6 Oceanic Anoxic Event 2 (OAE2) ~94.5 million years ago” by Li, Y.X. et al. (2021, in press) in Earth and Planetary Science Letters (<https://doi.org/10.1016/j.epsl.2021.117331>).