STRATIGRAPHY OF THE BELOC, HAITI, CRETACEOUS-TERTIARY BOUNDARY SEQUENCE; S. D'Hondt[1], T.J. Bralower[2], M. van Fossen[3], J.E.T.Channell[3], J.C. Zachos[3], M.A. Arthur[1], and H. Sigurdsson[1], [1]Graduate School of Oceanography, University of Rhode Island, Narragansett, R.I. 02882, U.S.A., [2]University of North Carolina, Chapel Hill, N.C. 27599, U.S.A., [3]University of Florida, Gainesville, Fl 32611, U.S.A., [4]University of Michigan, Ann Arbor, MI 48109, U.S.A.

The Beloc Formation Cretaceous-Tertiary (K/T) boundary occurs on the southern peninsula of Haiti, within a succession of deep-water carbonates and marls[1,2]. Within this sequence, the K/T boundary interval is biostratigraphically and paleomagnetically complete and is clearly marked by a tektite-bearing layer[3]. This layer directly overlies uppermost Maestrichtian limestones and chalks of the *Micula murus* and *Abathomphalus mayaroensis* nannofossil and foraminiferal zones. It is immediately overlain by 5 cm. or more of basal Paleocene P0 (*Guembelitria cretacea*) foraminiferal zone sediments. The shift to a *Guembelitria*-dominated fauna at the Beloc tektite horizon has been previously noted[1] and is typical of complete K/T boundary sequences[4,5]. Within 1.1 m. of the top of the glass-bearing unit, early Paleocene *Parvularugoglobigerina eugubina* Zone[6] foraminifera first appear (i.e. *P. eugubina*, *Eoglobigerina eobulloides*). Because of a substantial Cretaceous component throughout and the lack of good Tertiary markers, the nannofossil K/T boundary cannot be precisely determined. However, the absence of *M. murus* between +0.03 and +13.15 supports the foraminiferal determination of the boundary at 0.00 m (the top of the tektite layer). The nannofossil *Biscutum romeinii* first appears 6.75 m. above the glass-bearing horizon, which places the interval above that datum in the *B. romeinii* Subzone[7] of the earliest Paleocene NP1 nannofossil zone. The entire Tertiary section lies within the lowermost Paleocene *Markalius inversus* Zone (NP1[8]). *Cruciplacolithus primus* was not observed within the samples studied, suggesting that even the top of the section lies within the lower part of Zone NP1.

The extended intervals spanned by the 29R paleomagnetic zone and foraminiferal and nannofossil biozones above and below the boundary at this sequence indicate high sediment accumulation rates (up to 7.5 cm/kyr), while the presence of several Maestrichtian foraminiferal and nannofossil taxa in the earliest Paleocene interval suggests a large amount of sedimentary reworking. A noticeable shift to rapidly fluctuating whole-rock elemental and $\delta^{13}C$ signals occurs at the K/T boundary : these fluctuations probably reflect a combination of variable sedimentary reworking and diagenetic alteration.

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