Ejecta sedimentary sequence from the Chicxulub crater.-Stratigraphy and distribution of the Albion Formation in Belize-

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The Albion Formation, which is located southeastern region of Yucatan Peninsula, is identified as the outer portion of the continuous ejecta blanket of the Chicxulub crater (Ocampo et al., 1996, Pope et al., 1999). We describe more detailed stratigraphic character of the Albion Formation at three locations; such as, eastern border area of Mexico, Albion Island area of northwestern Belize and Armenia area of central Belize. Each area situated 320 km, 350 km and 450 km from the Chicxulub crater, respectively.

The Albion Formation, which is formed Spheroid and Diamictite members, appears on the uppermost Cretaceous shallow environmental dolomite sequence. The Spheroid Member consists of well sorted and laminated spheroid layer with red to orange colored clay fragments of impact glass. Spheroid is formed by dolomite clast with carbonate mount, which identified as accretionary lapilli in the carbonate vapor cloud. The low angle cross-bedding suggests that paleocurrent show NNW to SSE which direction suggests the flow come from the Chicxulub crater. Thickness of the Spheroid Member becomes 1 m to 9 m thick from the Mexico border area to the Armenia area. The Spheroid Member is identified as high-energy lamina flow deposits which shows the early stage ejecta flow sedimentation.

The Diamictite Member characterized by boulder-size dolomite block within coarse-grained calcareous matrix. Most blocks are coated by a 10~20 cm thick calcareous layer which is formed by accreted calcite crystal layers. The Diamictite Member disappeared at the Armenia area, which indicate that the diamictite flow is not widely distributed than that of the spheroid flow. The Diamictite Member may formed by fragmental debris by the turbulent density current in the ballistic eruption.

These stratigraphic characteristics of the Albion Formation is very different than that of the Cuba K/T boundary deposits which formed by the landslide and Tsunami deposits. The Cuba K/T boundary deposits may be contained key evidences when the ejecta entered the ocean.