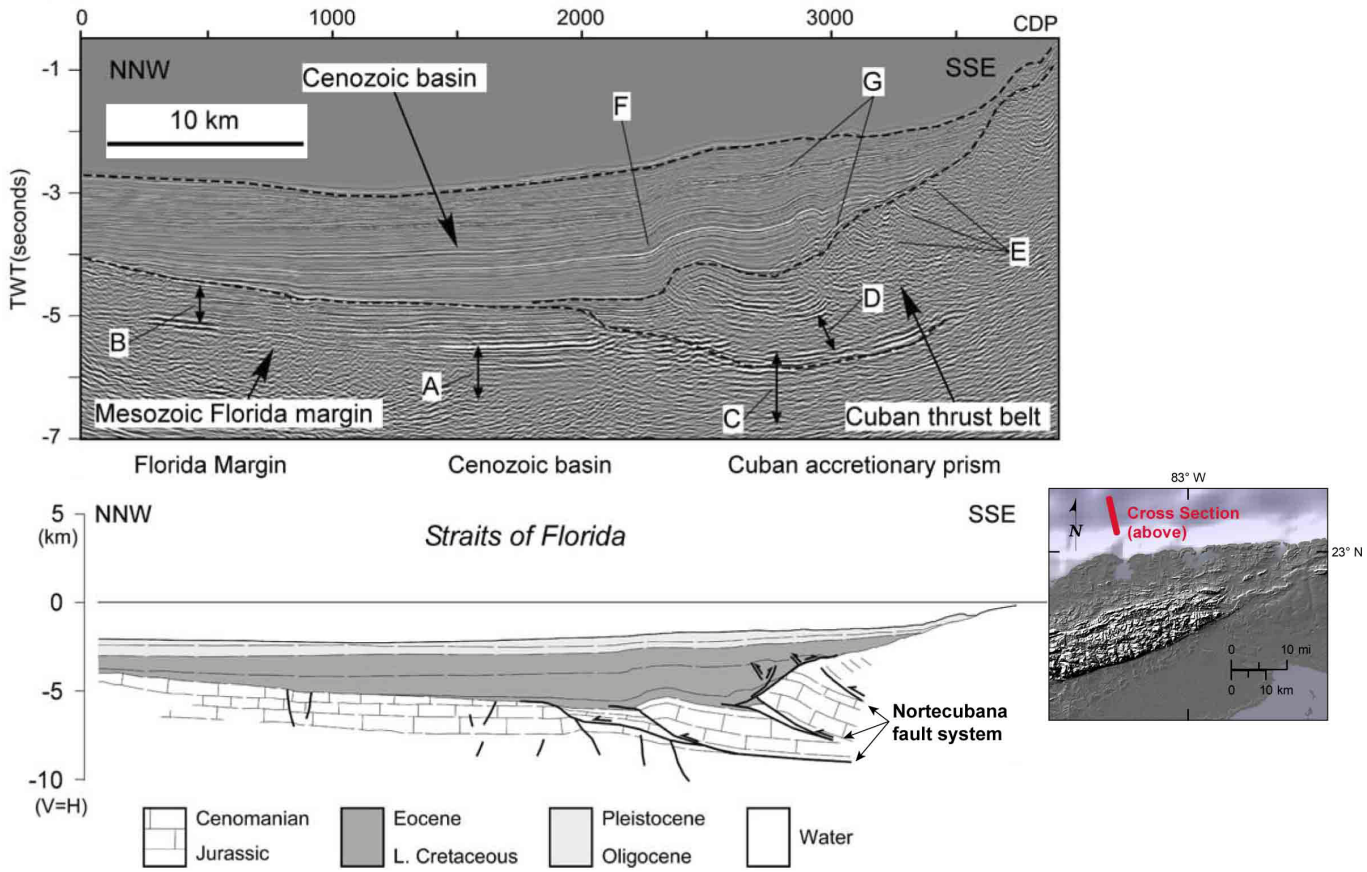
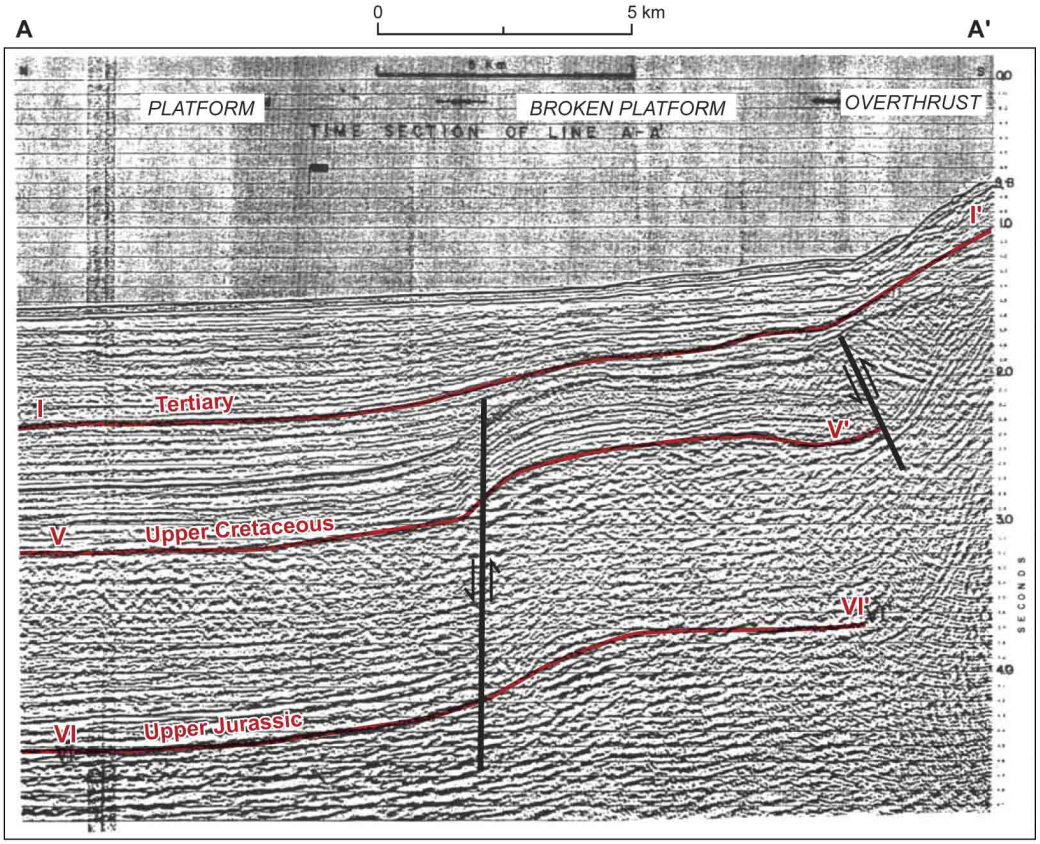
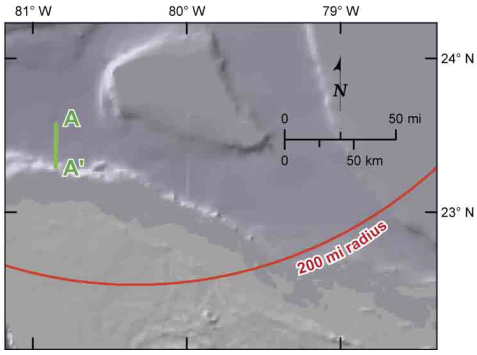


Figure 2.5.1-279 Offshore Cross Section across the Cuban Fold-and-Thrust Belt, Western Cuba





Modified from: Reference 497

Figure 2.5.1-280 Offshore Interpreted Seismic Line, Cuban Thrust Belt

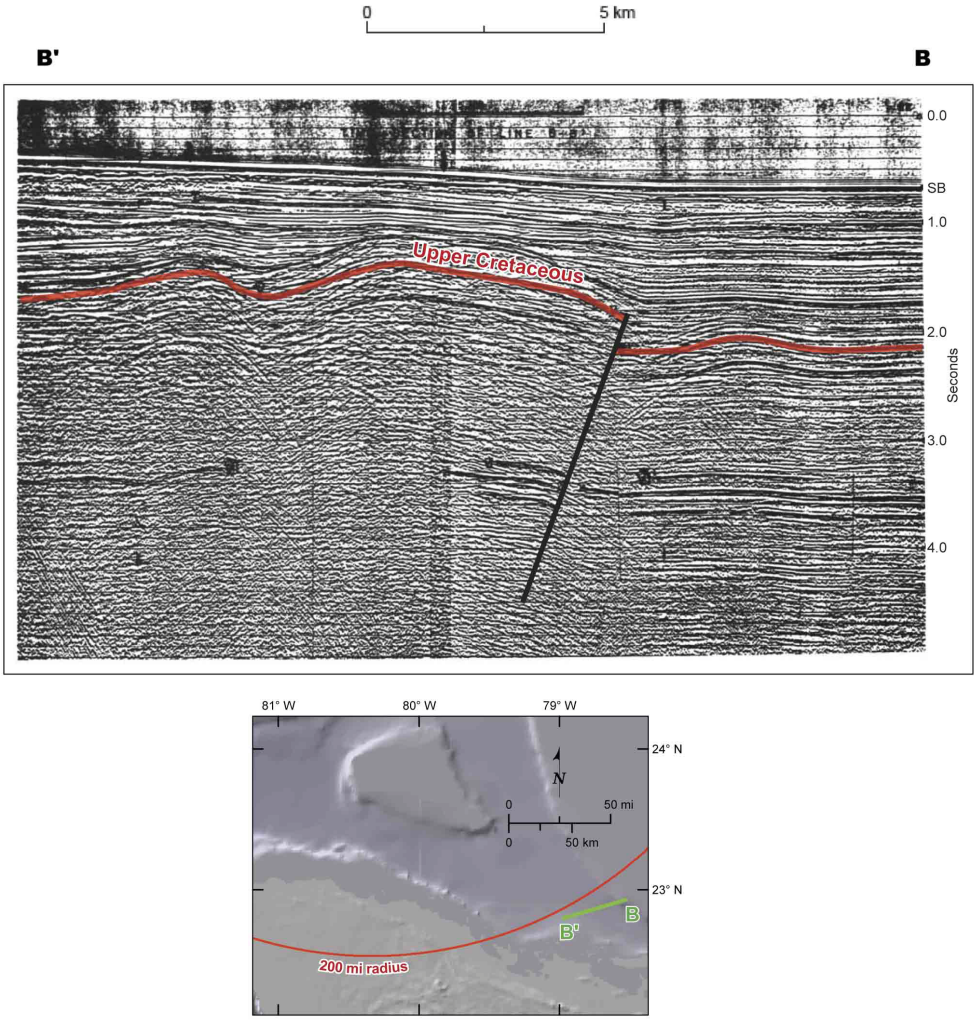
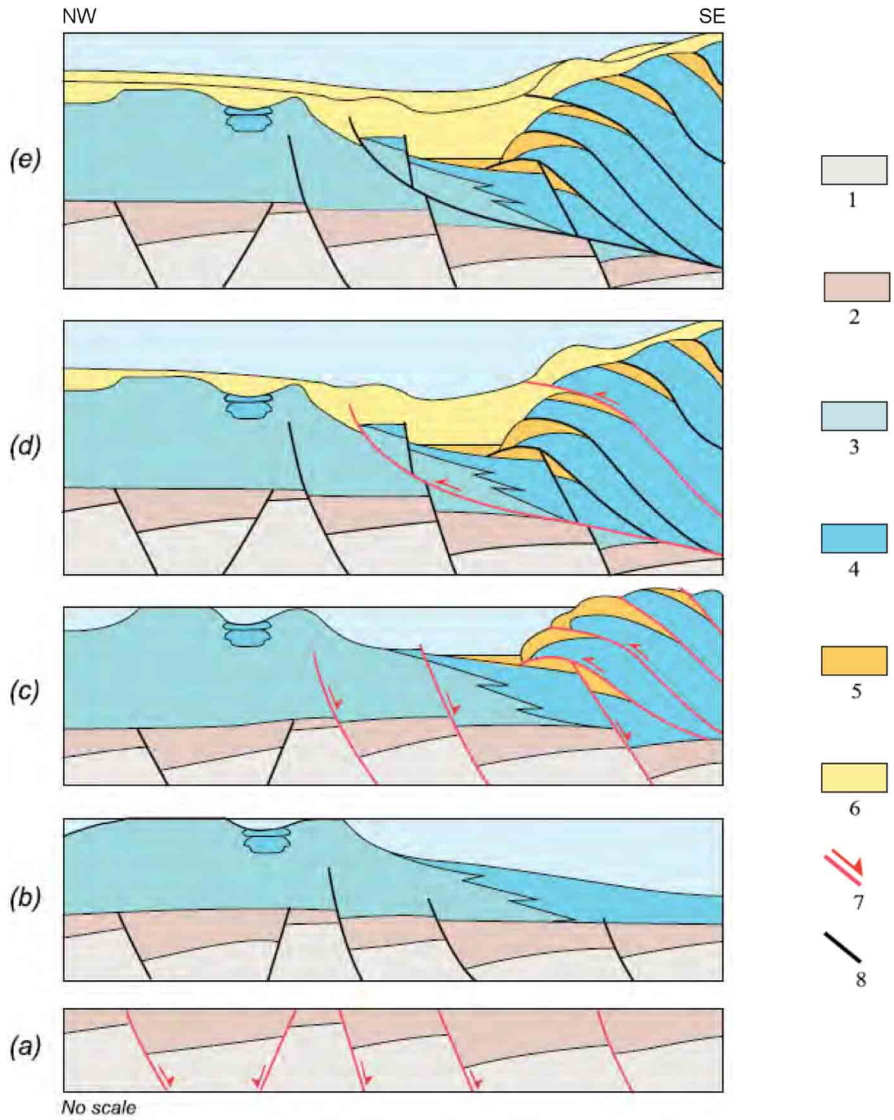


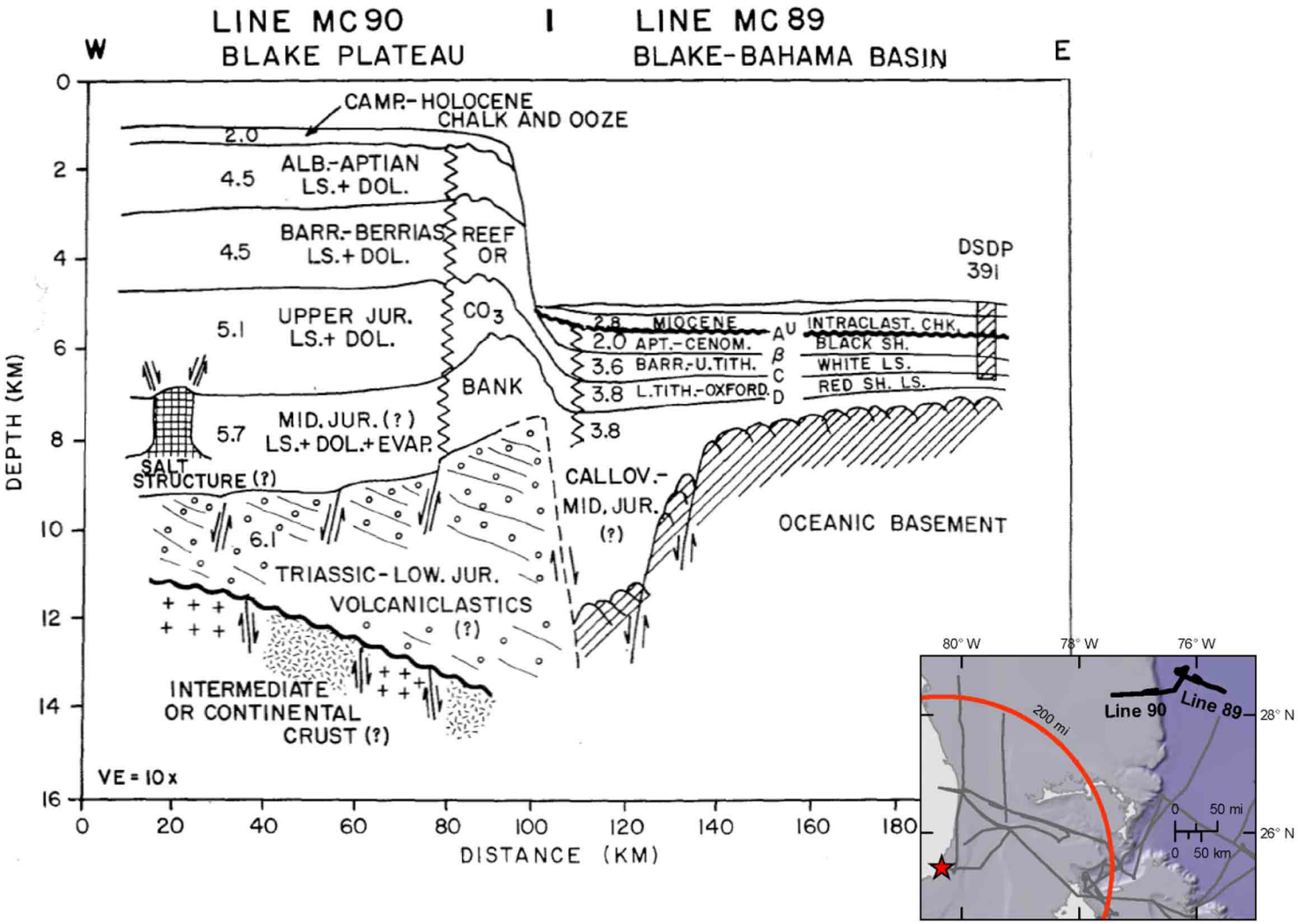
Figure 2.5.1-281 Offshore Interpreted Seismic Line, Cuban Thrust Belt



Notes:
Proto-Caribbean synrift period (Early to Middle Jurassic).
Post-rift subsidence.
End of Cuban orogen in the early Eocene; the collision started in the Maastrichtian, caused by northeastward migration of the Cuban island arc.
Infilling of the basin, which started as foreland during the previous phase. A slight Neogene compressive reactivation induced the formation of a few new inverse faults.
Passive subsidence caused by the sedimentary influx from the Cuban island.

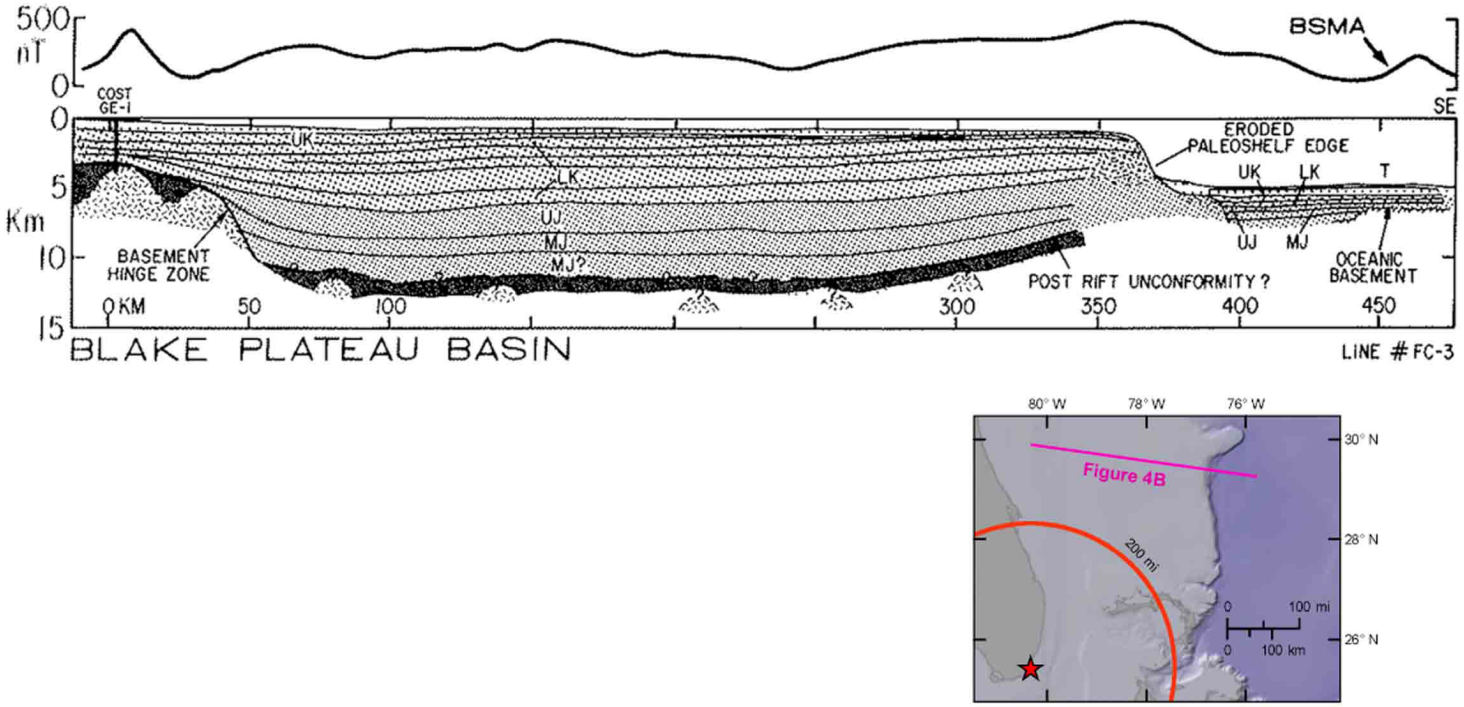
1 = continental basement
2 = synrift
3 = postrift carbonate platform (end Jurassic to Cretaceous)
4 = postrift deep-water facies (Late Jurassic to Cretaceous)
5 = Tertiary syntectonic deposit
6 = Tertiary posttectonic deposits
Active faults are in red.
Source: Reference 484

Figure 2.5.1-282 Schematic Evolution of Offshore Northwest Cuba



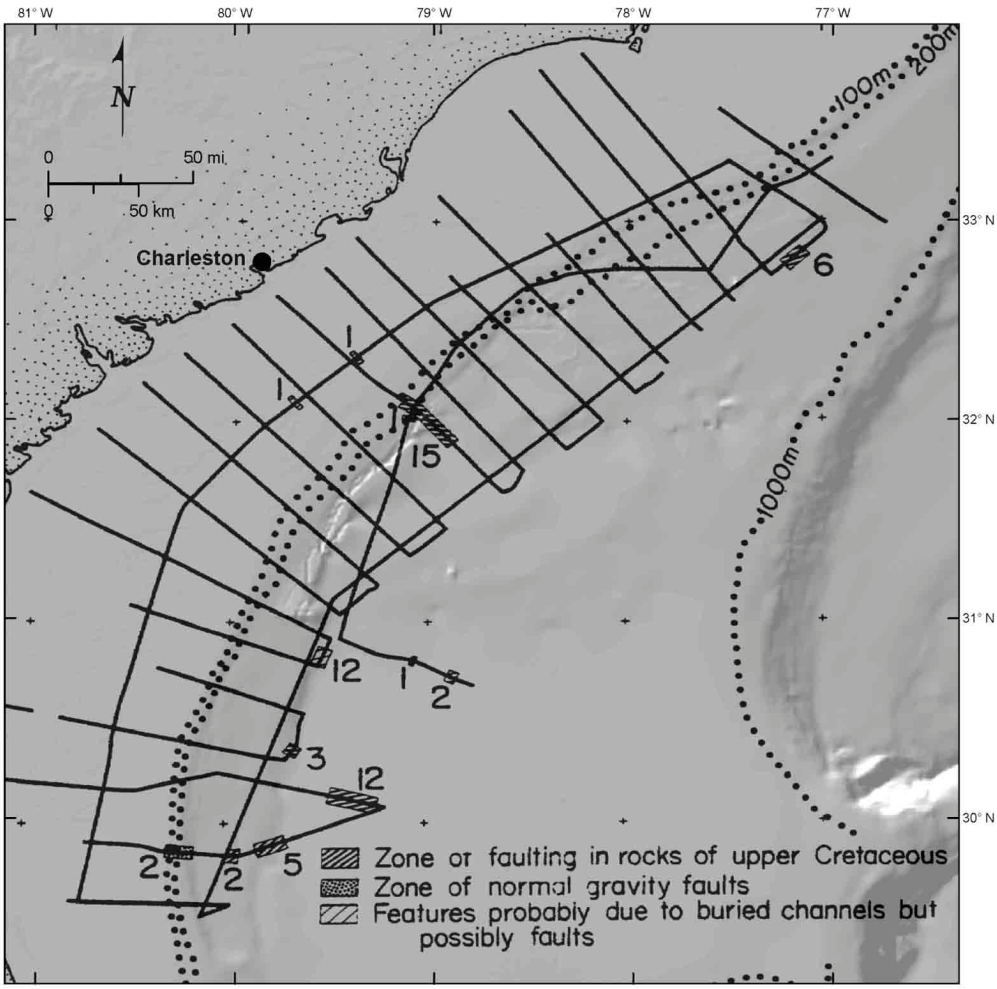
Modified from: Reference 424

Figure 2.5.1-283 Interpreted Seismic Line across the East Edge of the Blake Plateau



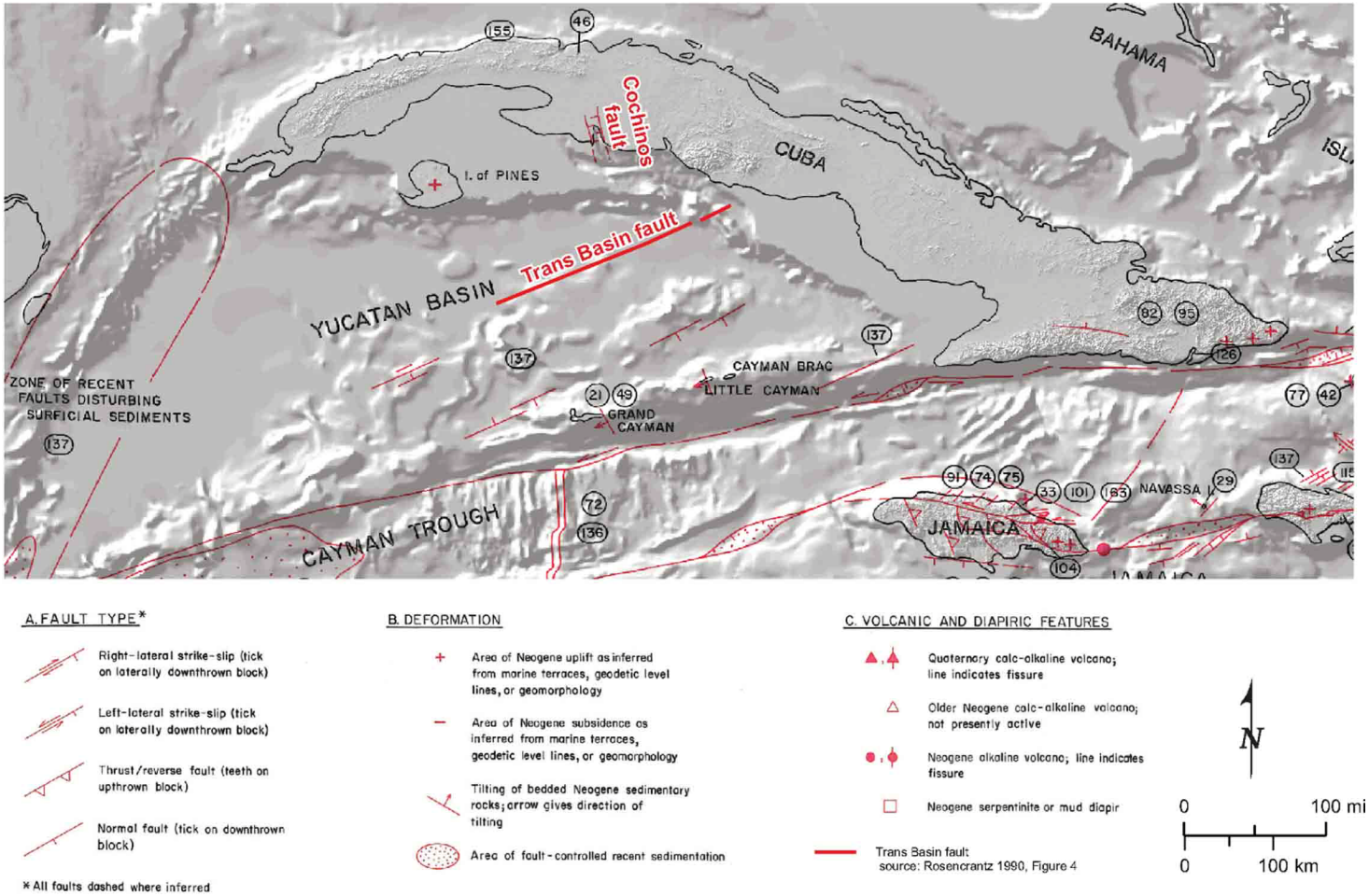
Modified from: Reference 341

Figure 2.5.1-284 Seismic Line Interpretation across Blake Plateau



Source: Reference 487

Figure 2.5.1-285 Locations of Faulting Identified on Blake Plateau Seismic Survey



Modified from: Reference 493

Figure 2.5.1-286 Neotectonic Map of Cuba

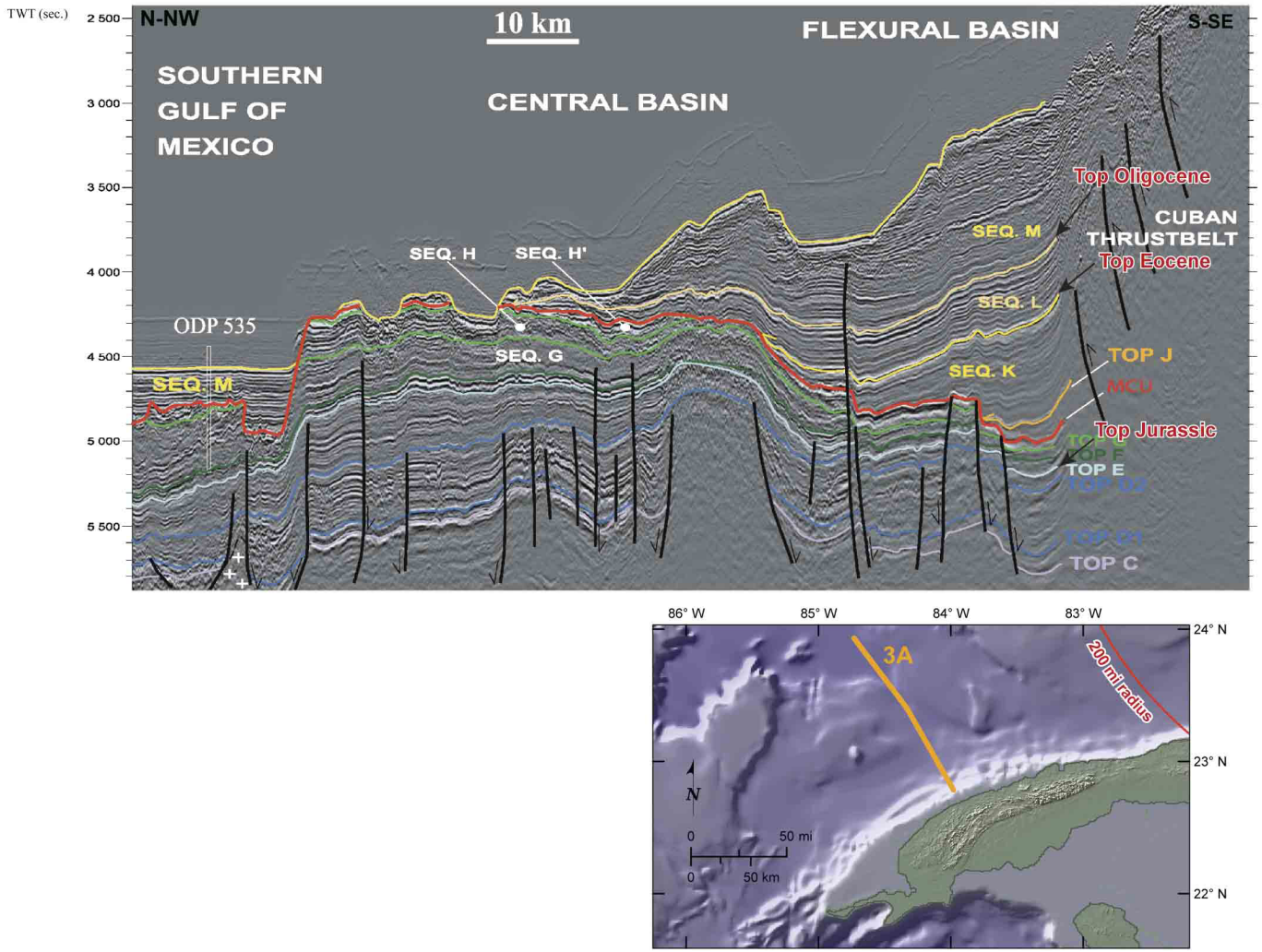
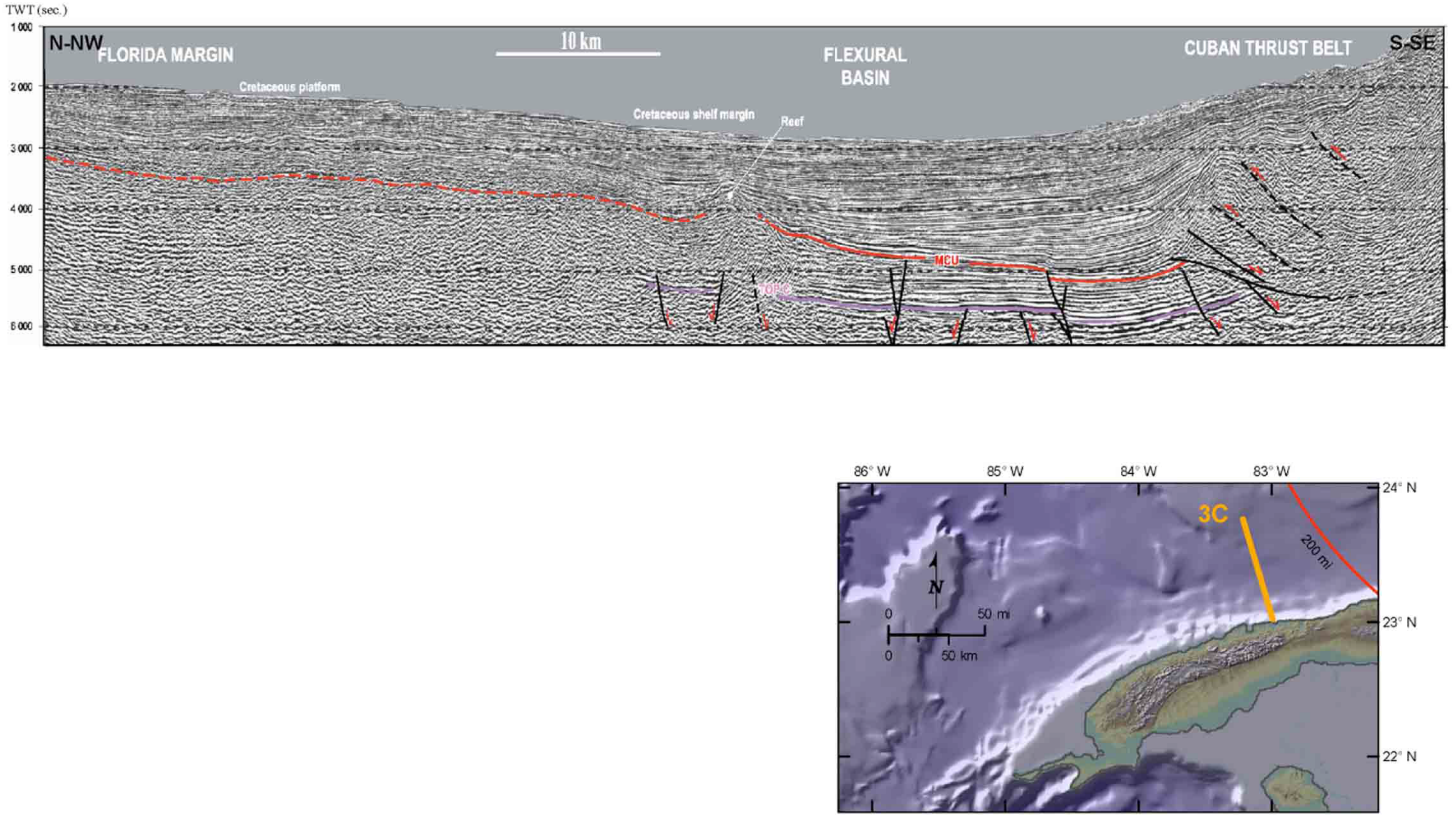
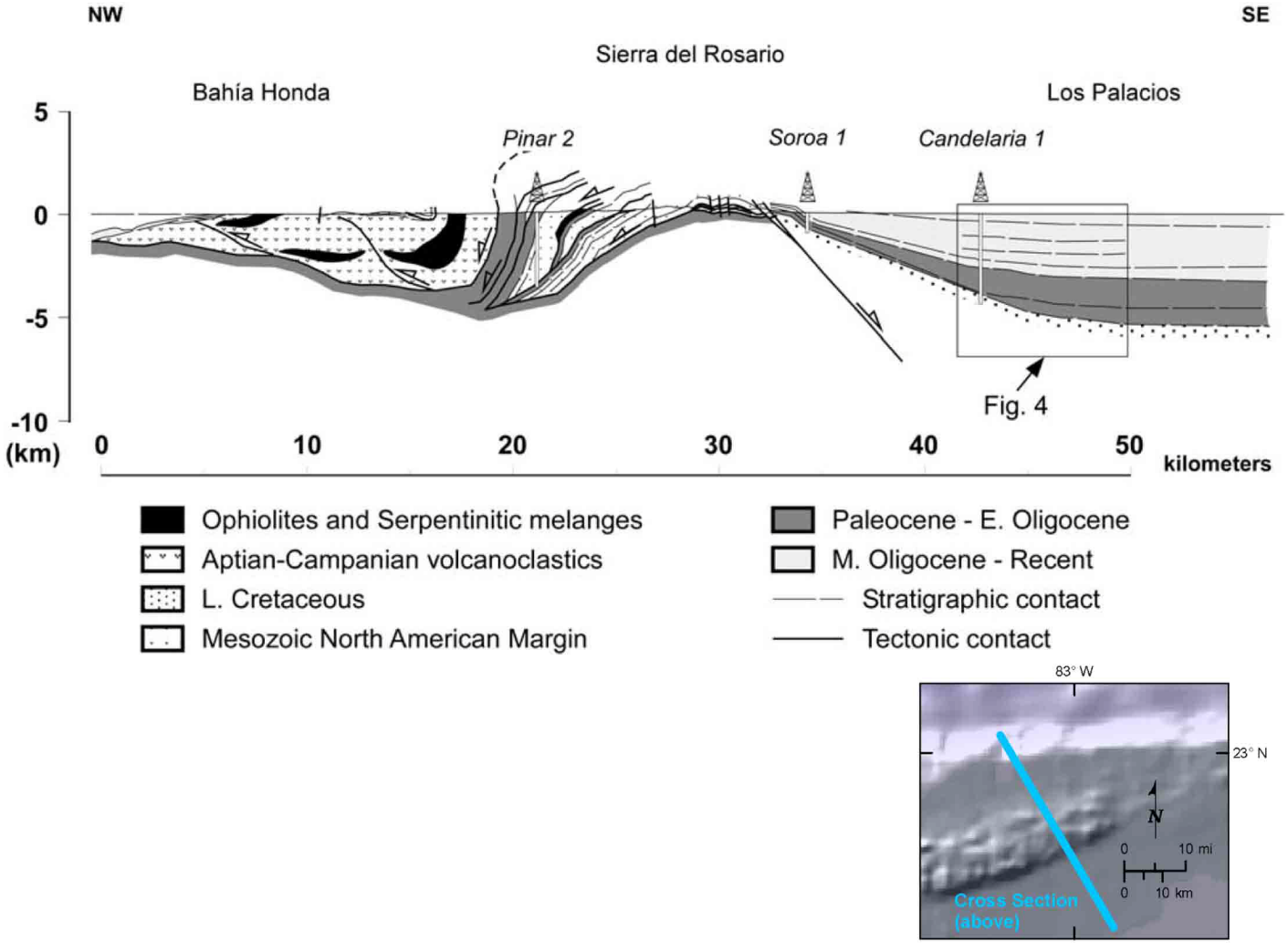


Figure 2.5.1-287 Interpreted Seismic Line Across Cuban Thrust Belt, Line 3A



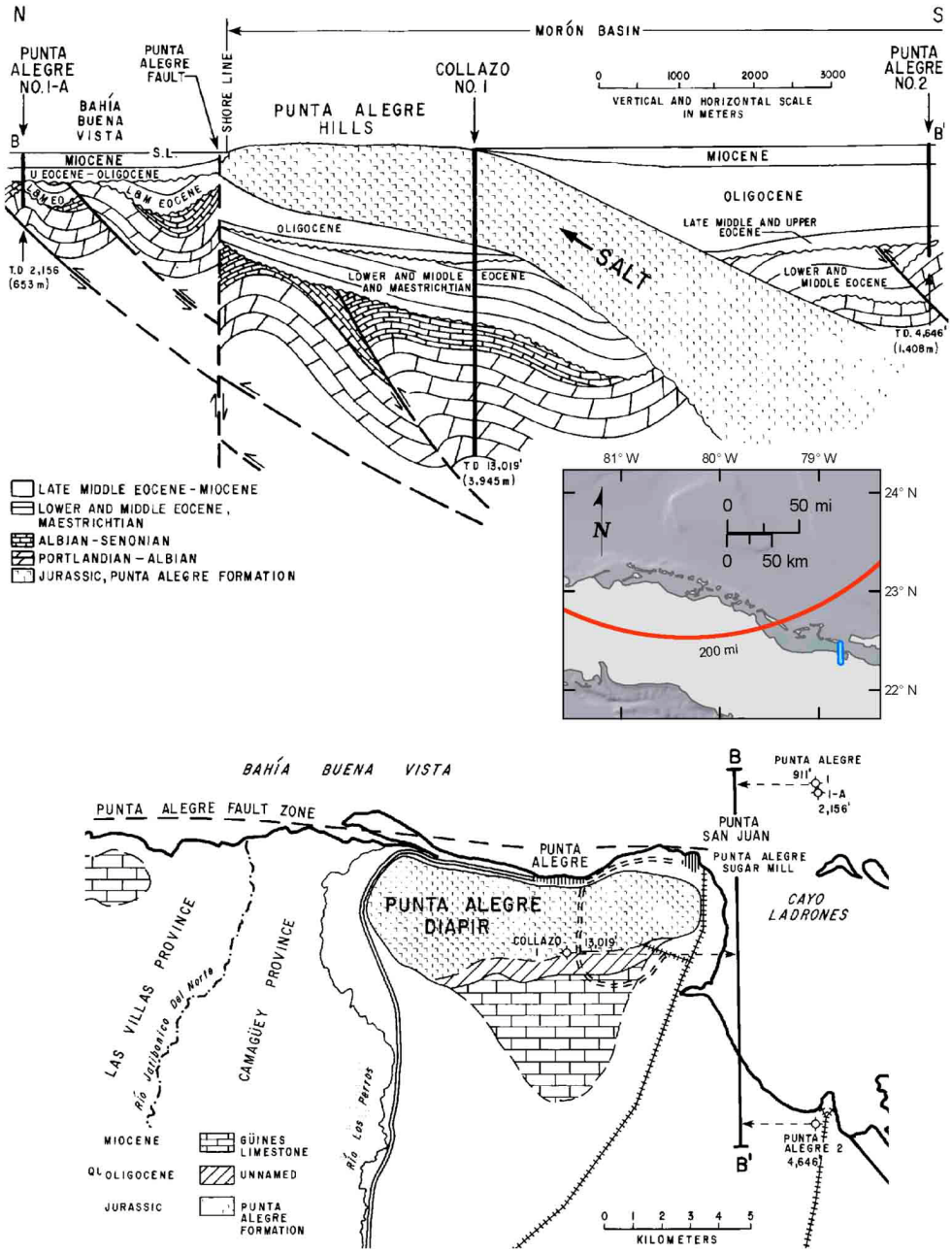
Modified from: Reference 484

Figure 2.5.1-288 Interpreted Seismic Line across Cuban Thrust Belt, Line 3C



Modified from: Reference 485

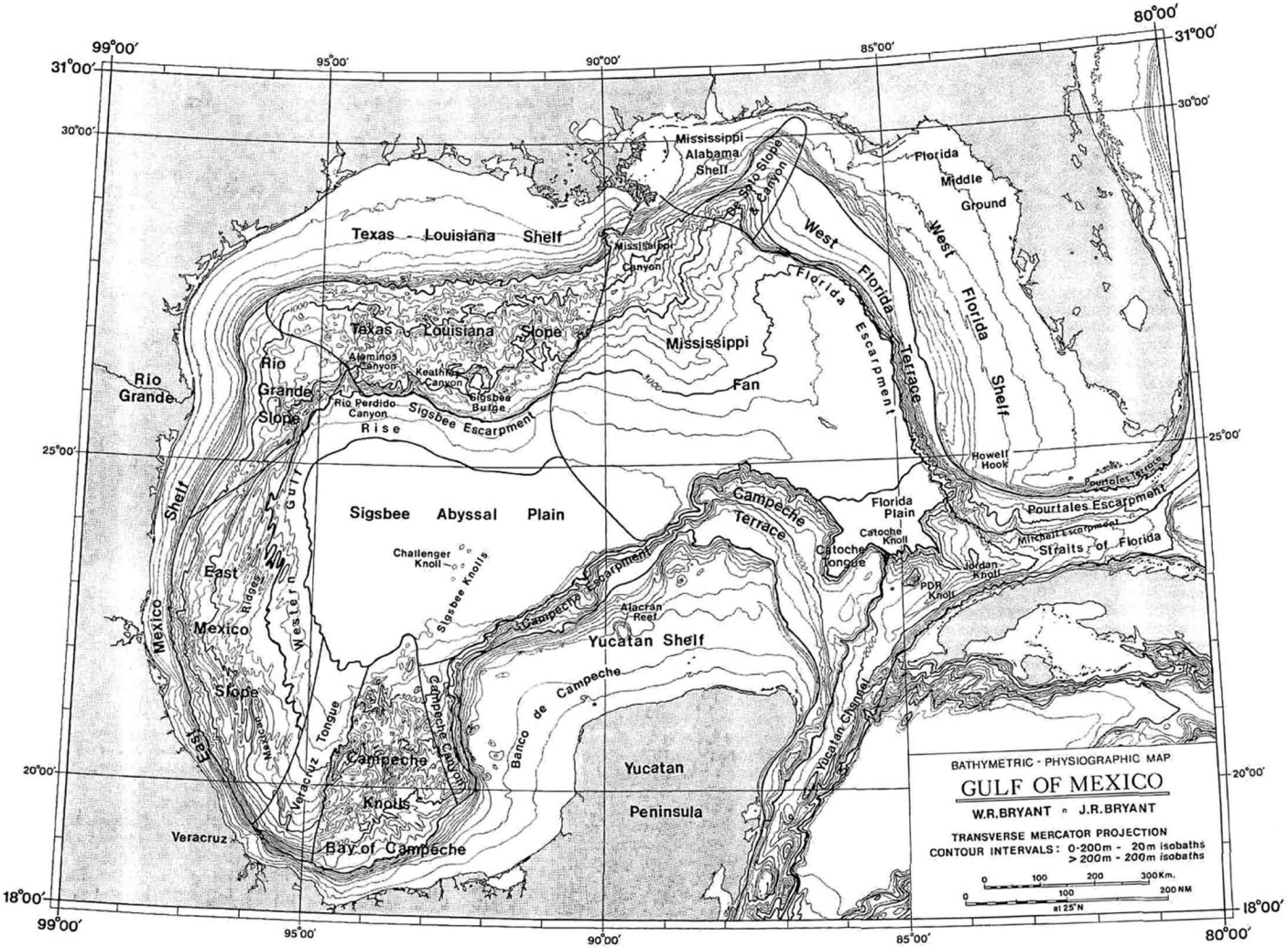
Figure 2.5.1-289 Onshore Cross Section across the Pinar Fault, Western Cuba



Modified from: Reference 501

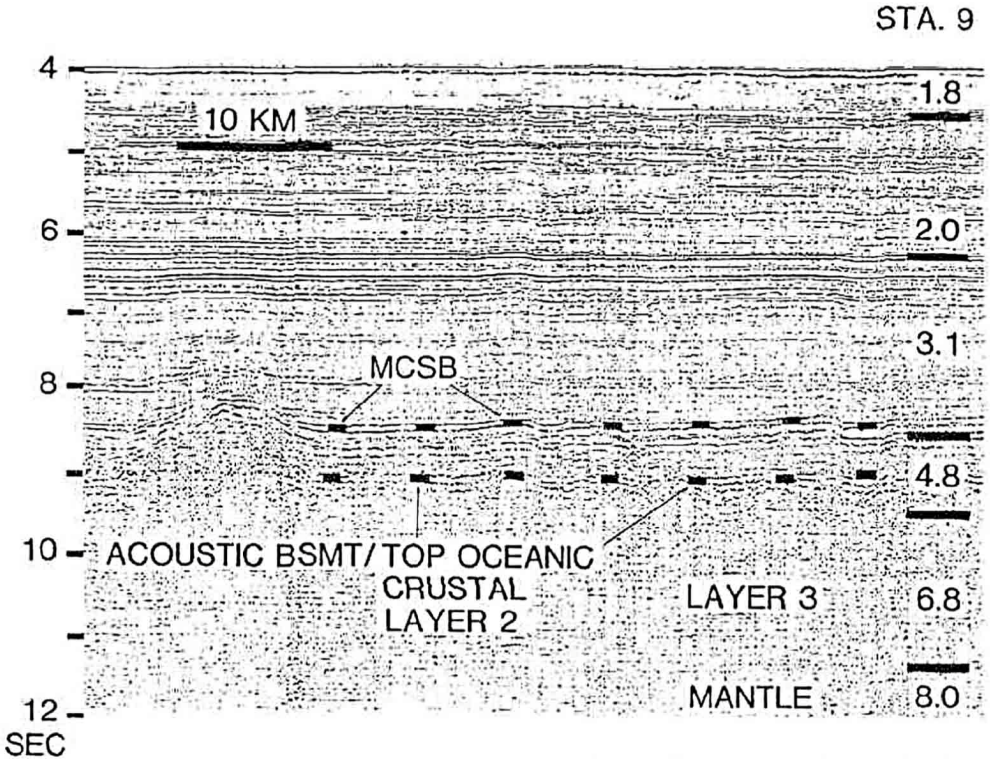
Figure 2.5.1-290 Cross Section and Map of the Punta Alegre Fault

Figure 2.5.1-291 Not Used



Source: Reference 506

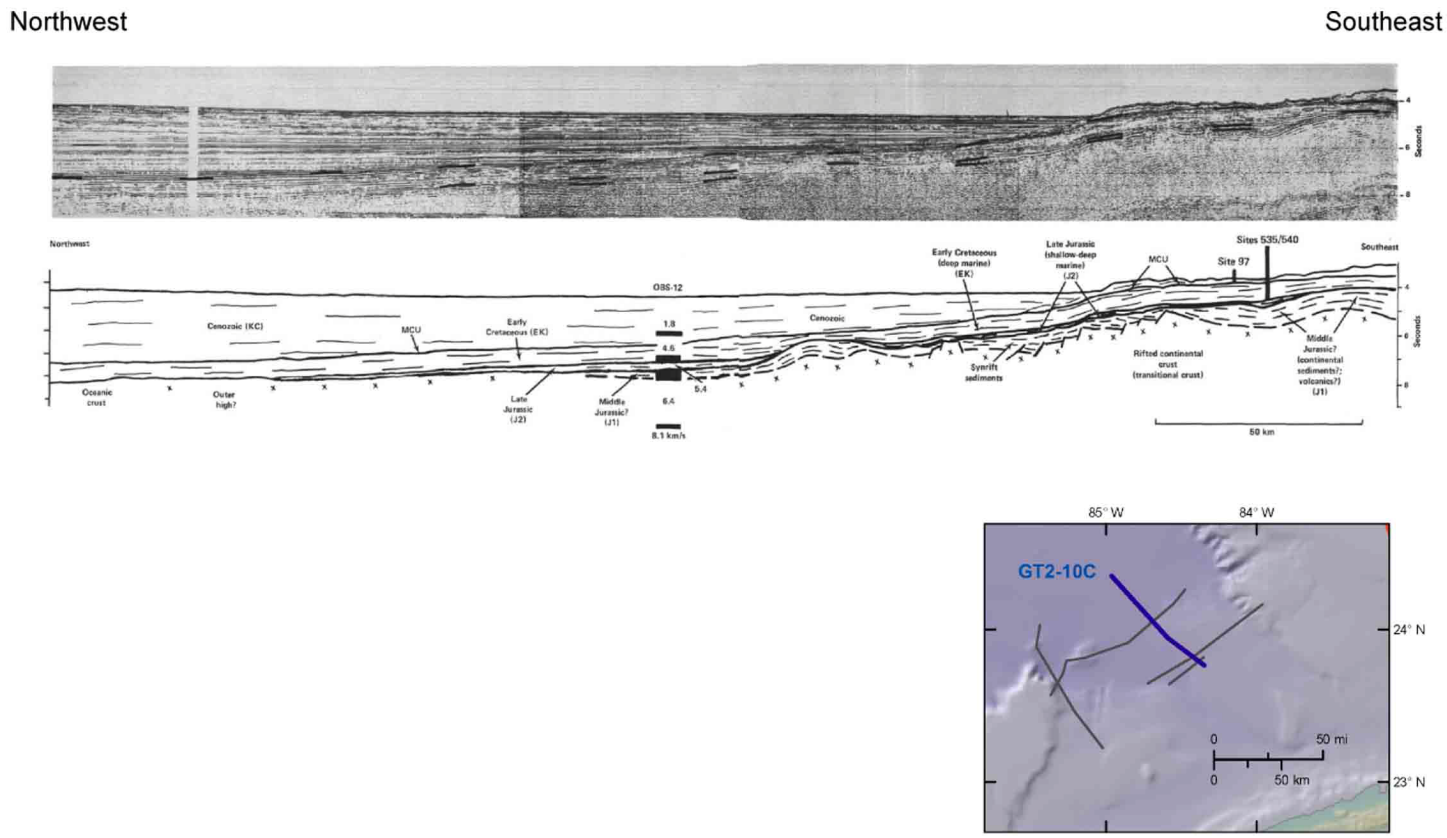
Figure 2.5.1-292 Bathymetric and Physiographic Map of the Gulf of Mexico



Note: Portion of the University of Texas Institute for Geophysics (UTIG) seismic reflection line 16-2 with refraction observations of oceanic crust in the south-central Gulf of Mexico basin. The refraction layer having velocity 4.8 kilometers/second corresponds to the reflection layers identified as mainly carbonates below the Mid-Cretaceous Sequence Boundary (MCSB) plus oceanic layer 2. There is no reflection from the boundary between oceanic layers 2 and 3. There is, however, a change in refraction velocity at the layer 2 to layer 3 interface of 4.8 to 6.8 kilometers/second. BSMT = basement.

Source: Reference 410

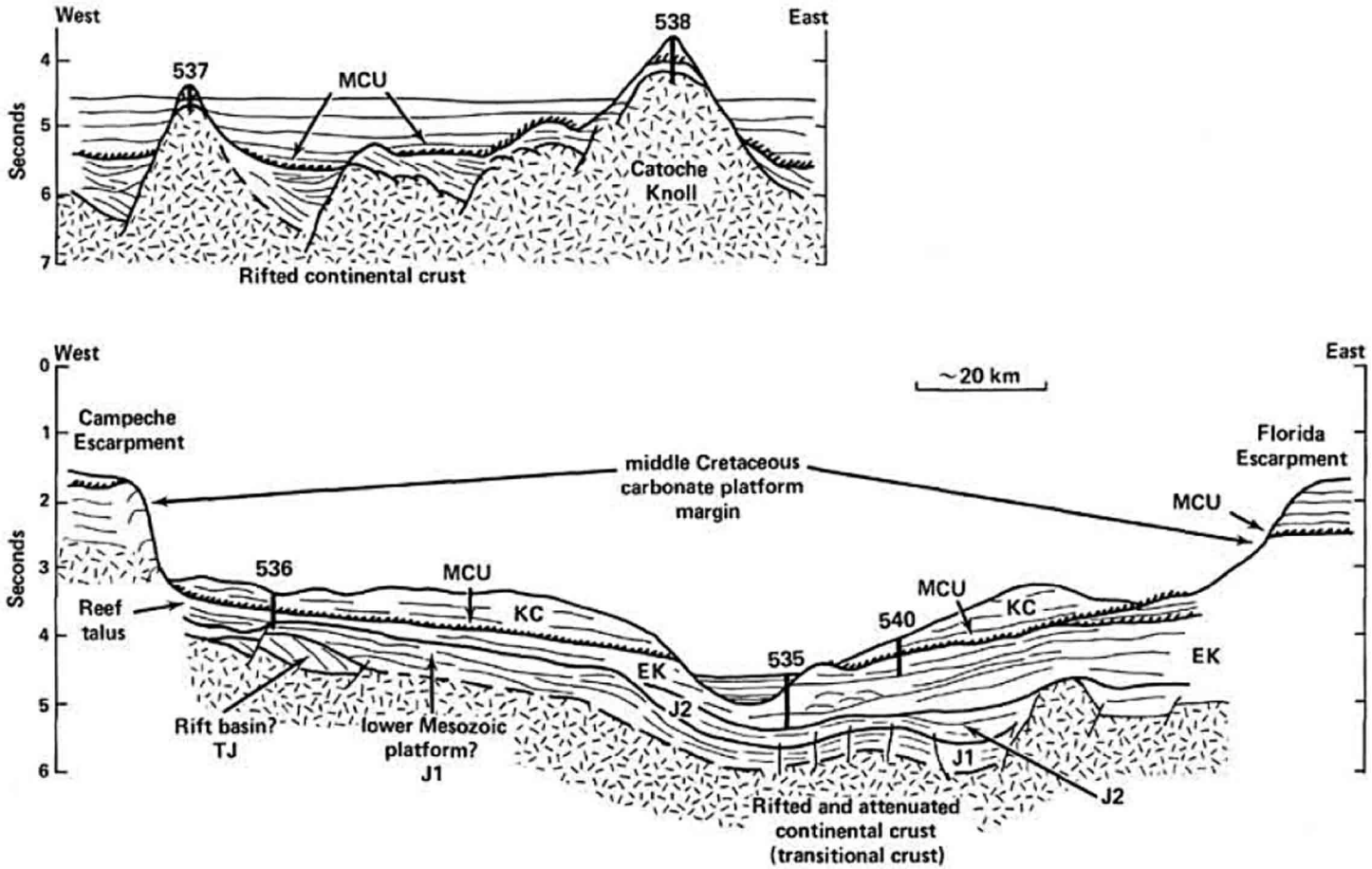
Figure 2.5.1-293 Portion of Seismic Reflection Line 462



Note: Line GT2-10C crosses the southeastern Gulf from northwest to southeast. Note high-standing basement complex to the south and deeper grabens to the north. Basement is overlain by Late Jurassic and Early Cretaceous sediments (drilled in DSDP Holes 535 and 540), indicating that this region of the southeastern Gulf was a deep seaway during Late Jurassic-Early Cretaceous. The line also shows the regional change from ocean crust in the northwest to more faulted and higher-standing transitional crust in the southeast. Northward stratigraphic pinchouts of the inferred Middle and Late Jurassic sequences onto the “outer high” (or ocean crust/transitional crust boundary) suggest a relatively young age (possibly latest Jurassic to earliest Cretaceous) for the ocean crust in the southeastern Gulf. OBS-12 is an ocean-bottom seismometer refraction station.

Modified from: Reference 793

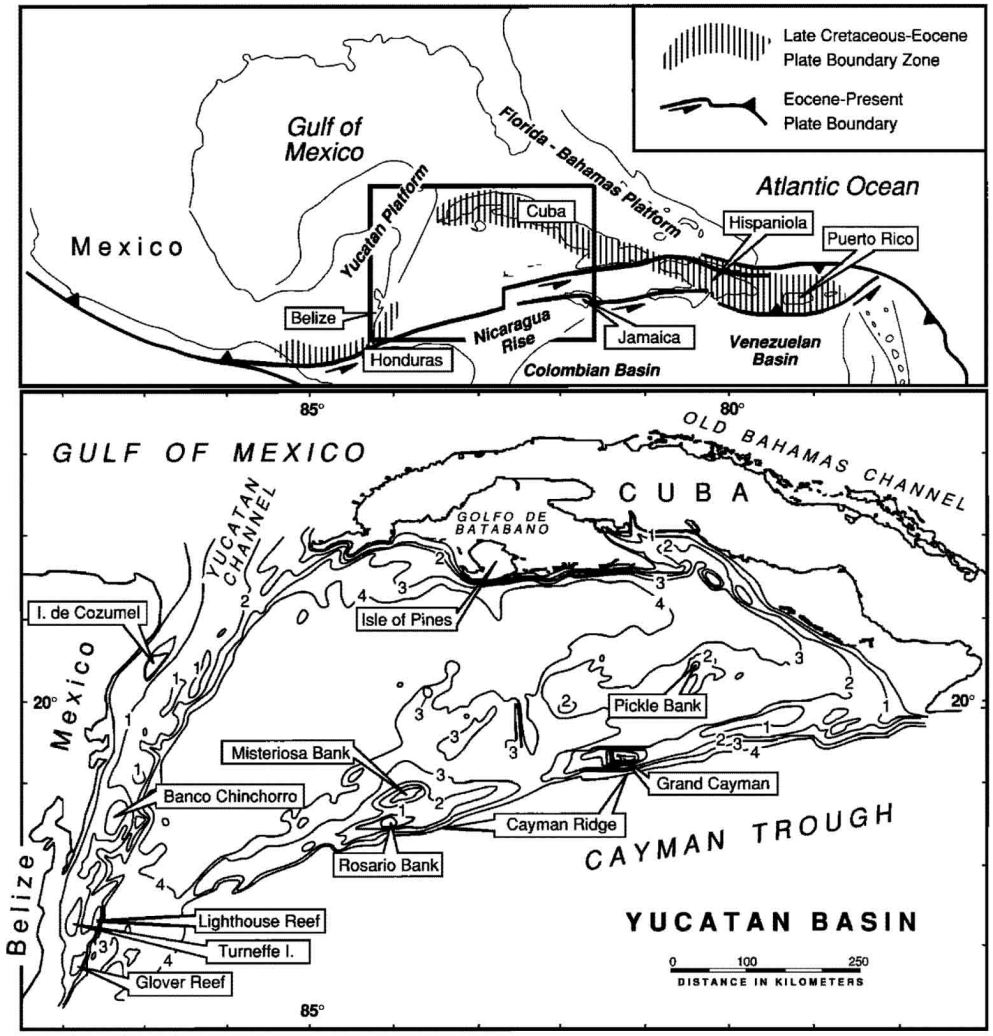
Figure 2.5.1-294 Seismic Line of Southeastern Gulf of Mexico



Notes: Schematic cross section for DSDP Leg 77 drill sites (Sites 535-538 and 540). MCU is the mid-Cretaceous unconformity. TJ, J1, J2, EK, and KC are seismic units described in Subsection 2.5.1.1.2.1.1.

Source: Reference 794

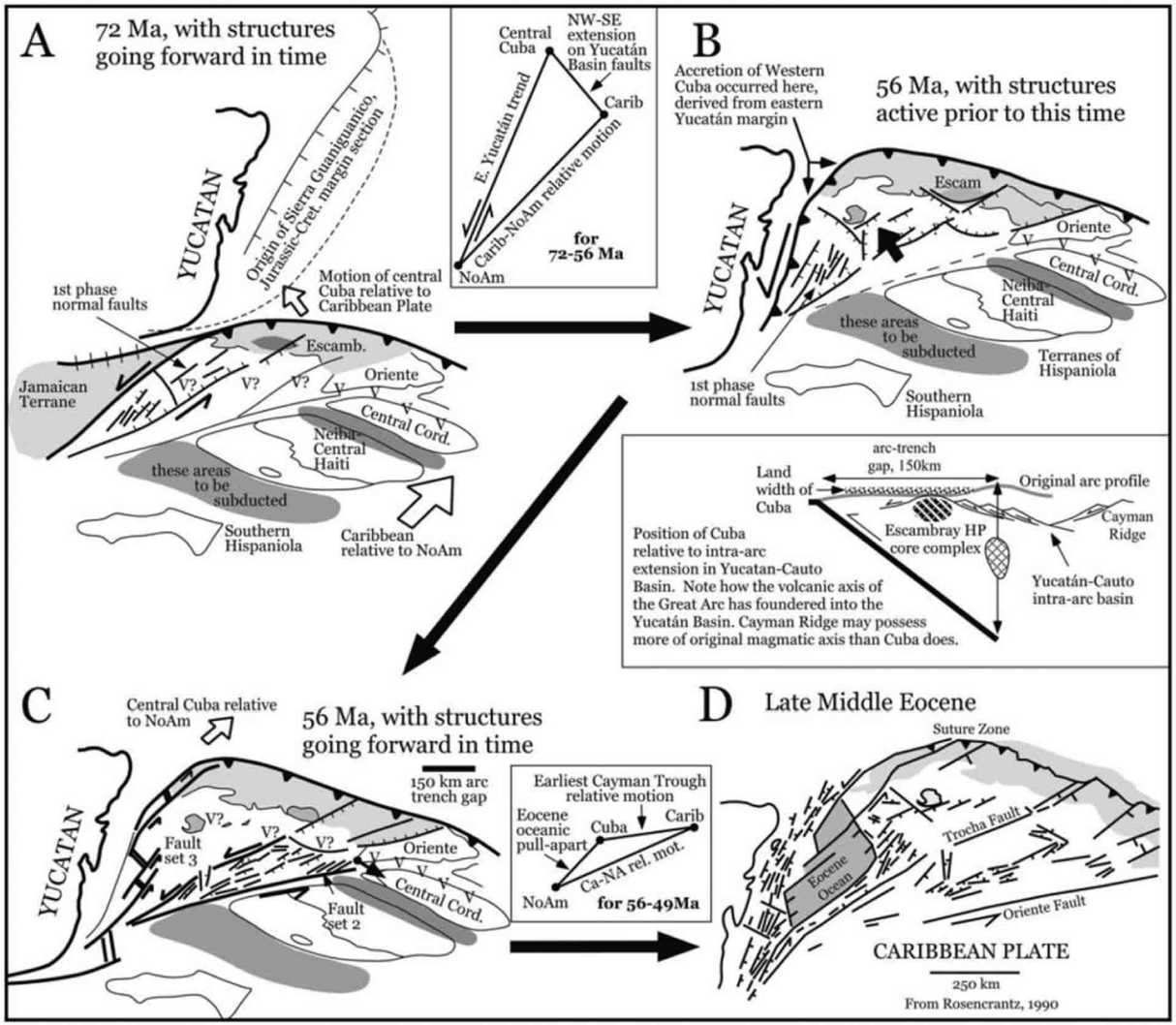
Figure 2.5.1-295 Mesozoic to Cenozoic Sediments, Rift Basins, and Rifted Continental Crust from the Yucatan Platform to the Florida Escarpment



Notes: Tectonic sketch map of the northern Caribbean (upper panel) and a simplified bathymetric map of the Yucatan Basin (lower panel). The location of the bathymetric map is shown by the rectangle outlined on the tectonic map. Isobaths are in kilometers.

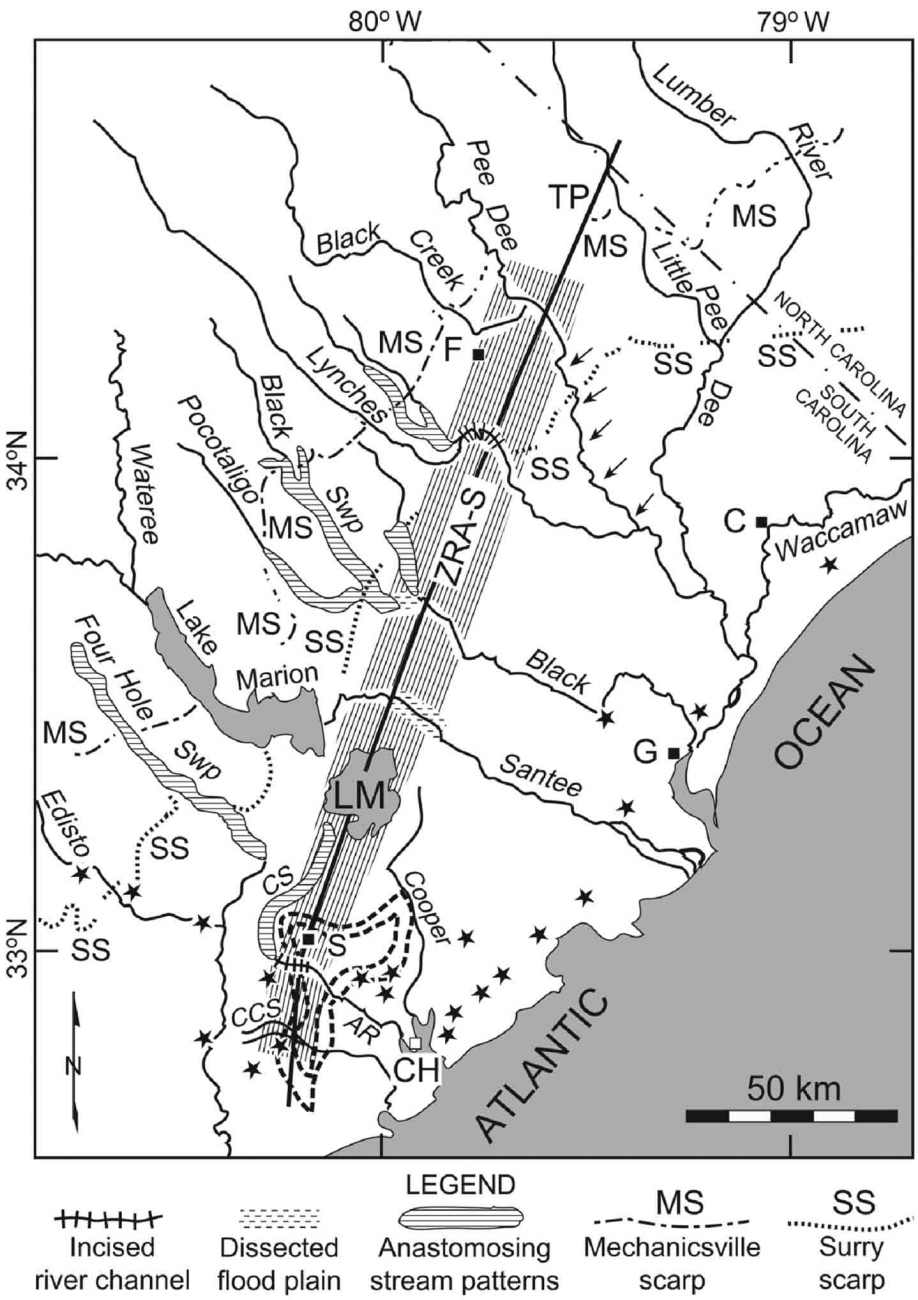
Source: Reference 529

Figure 2.5.1-296 Physiography and Bathymetry of the Yucatan Basin



Source: Reference 525

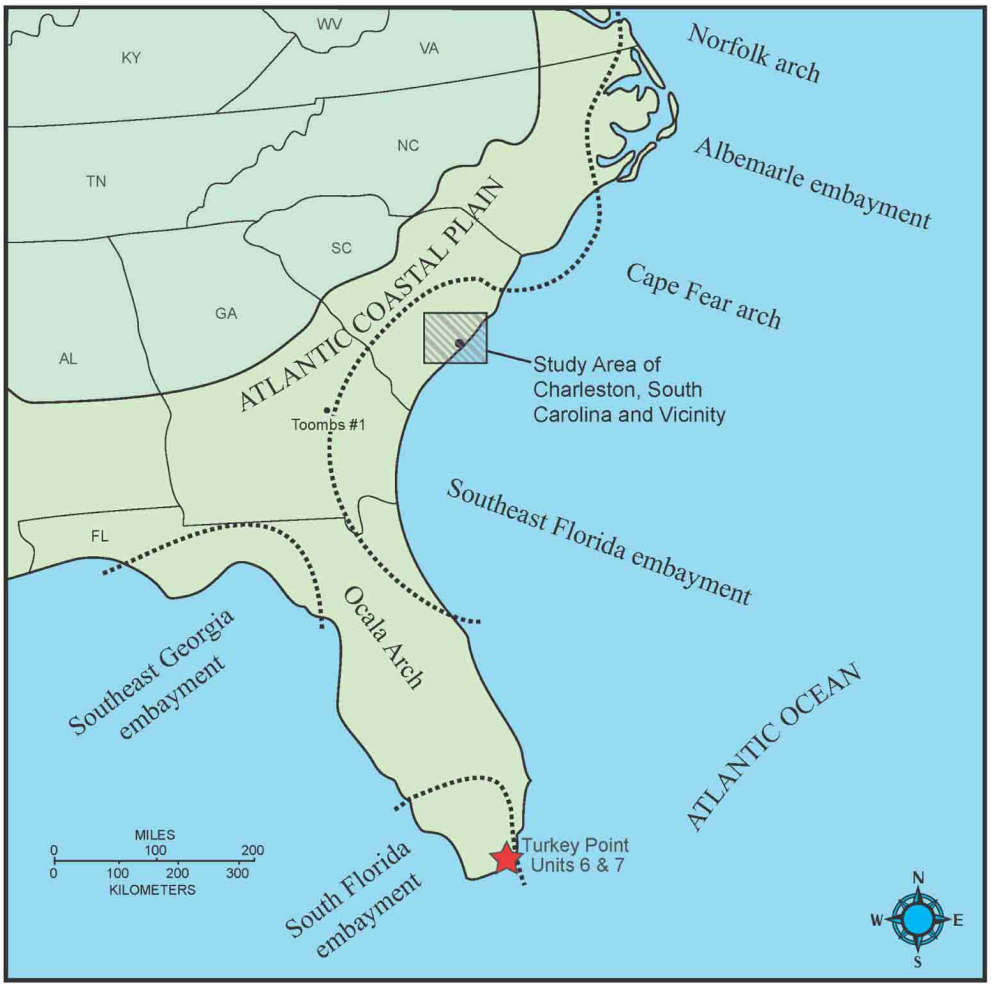
Figure 2.5.1-297 Three Stage Model for Opening of the Yucatan Basin



Notes: Map showing southern zone of river anomalies (ZRA-S; striped area), anastomosing stream patterns, pre-1886 sandblow sites (stars), and topographic profile (TP, bold line) approximately along the ZRA-S axis. Arrows along Pee Dee River denote reach flowing against southwest valley wall. Closed dashed contours near Summerville are highest-intensity isoseismals of the 1886 Charleston, South Carolina, earthquake. Mechanicsville (MS) and Surry (SS) are relict littoral scarps. AR—Ashley River; C—Conway; CCS—Caw Caw Swamp; CH—Charleston; CS—Cypress Swamp; F—Florence; G—Georgetown; LM—Lake Moultrie; S—Summerville.

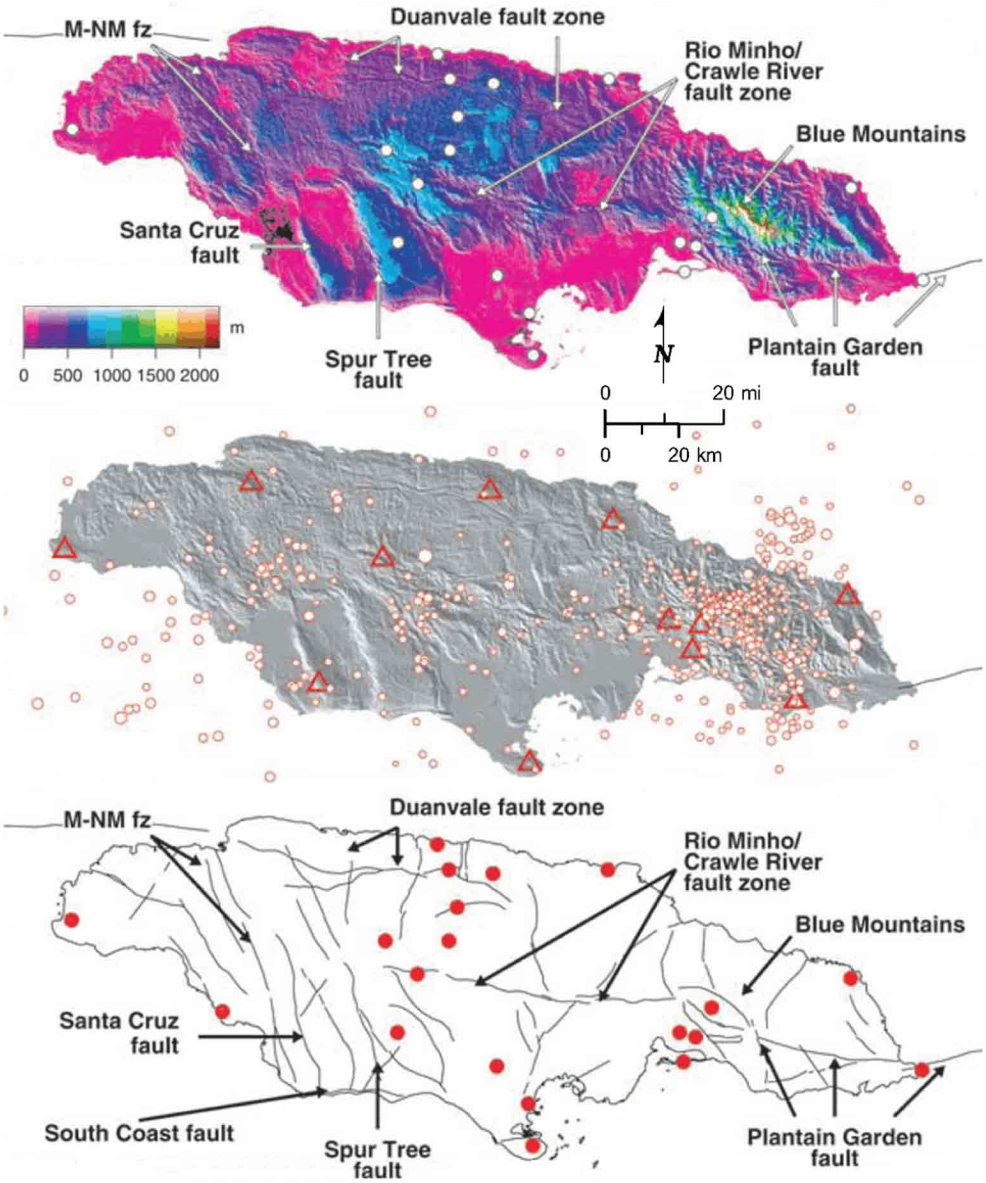
Source: Reference 534

Figure 2.5.1-298 Southern Zone of River Anomalies



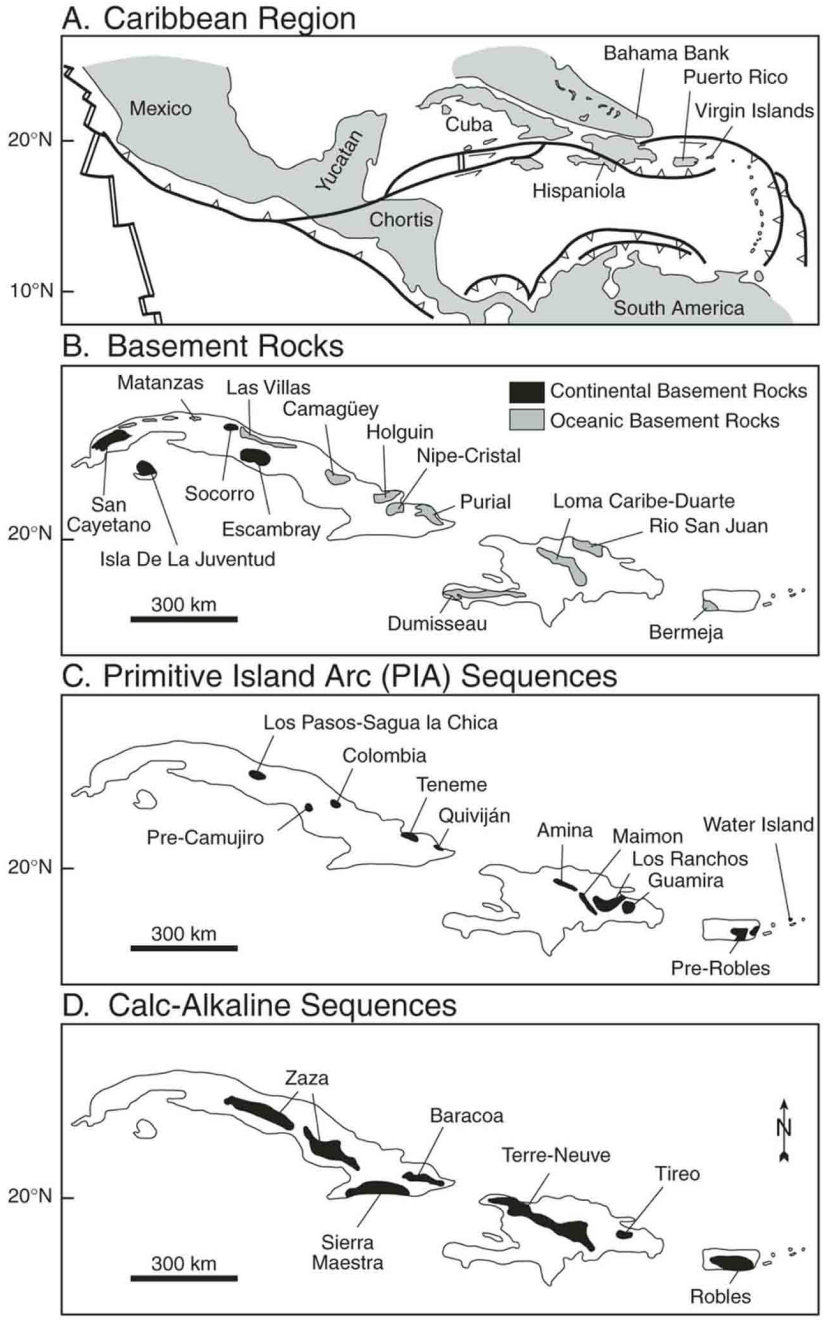
Modified from: Reference 775

Figure 2.5.1-299 Arches and Embayments Underlying the Atlantic Coastal Plain



Source: Reference 503

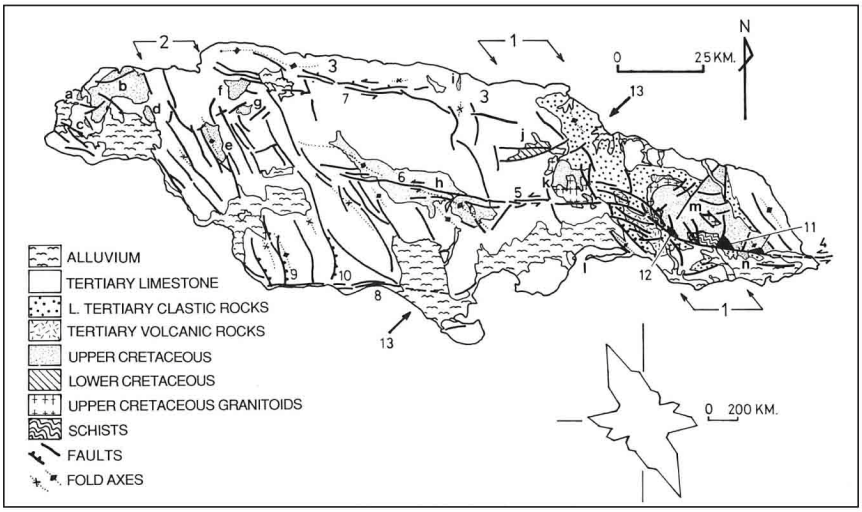
Figure 2.5.1-300 Simplified Fault Maps of Jamaica



Notes:
(A) Location of the Greater Antilles and present tectonic elements within the Caribbean region.
(B) Distribution of pre-Cretaceous continental and oceanic basement rocks.
(C) Volcanic rocks of the primitive island arc (PIA) sequence.
(D) Volcanic rocks of the calc-alkaline sequence

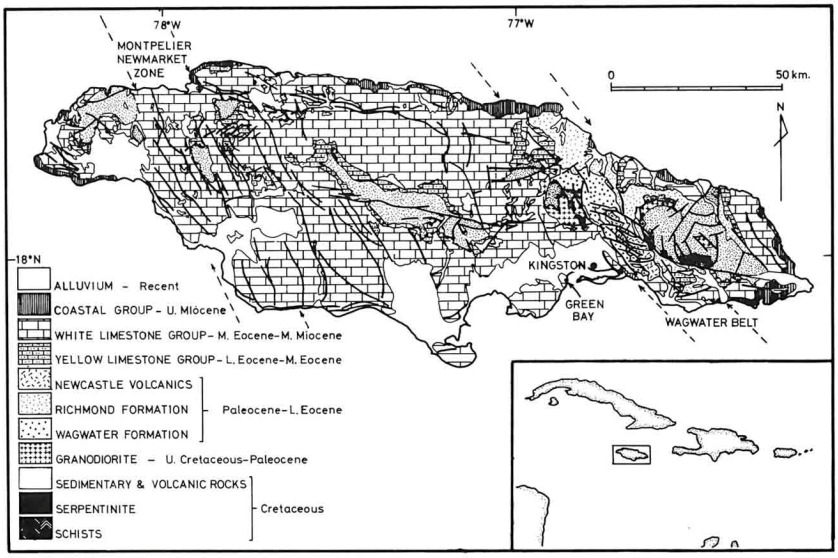
Modified from: References 219, 443, 568, and 689

Figure 2.5.1-301 Volcanic Evolution of the Greater Antilles Volcanic Arc



Source: Reference 217

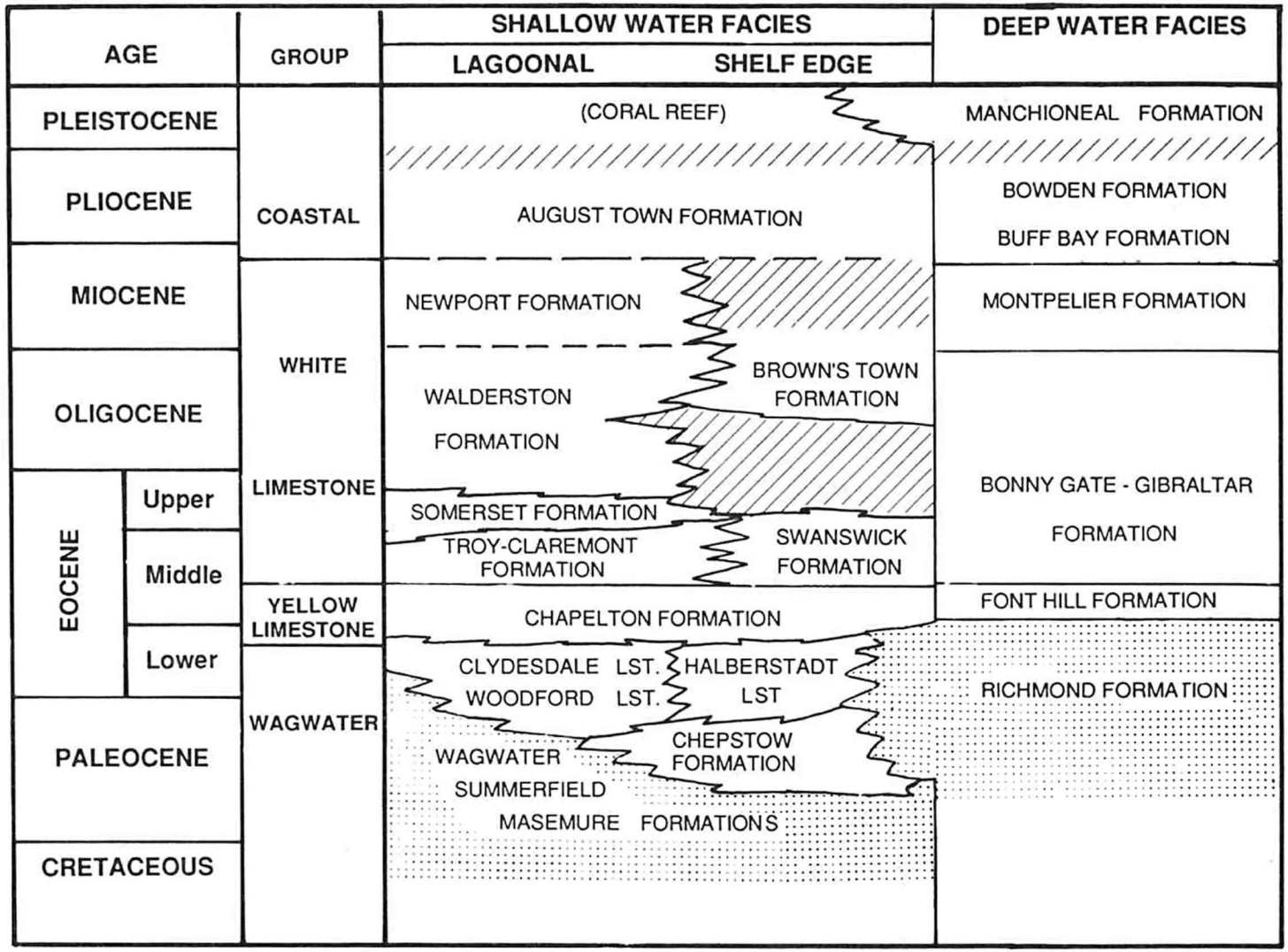
Stratigraphic Map



Source: Reference 217

Geologic Map

Figure 2.5.1-302 Geology of Jamaica



Note: Stippled portions indicate noncarbonate clastic rocks, and diagonally shaded portions indicate periods of nondeposition, or where the rock record has been obliterated.

Source: Reference 217

Figure 2.5.1-303 Simplified Tertiary Stratigraphy of Jamaica