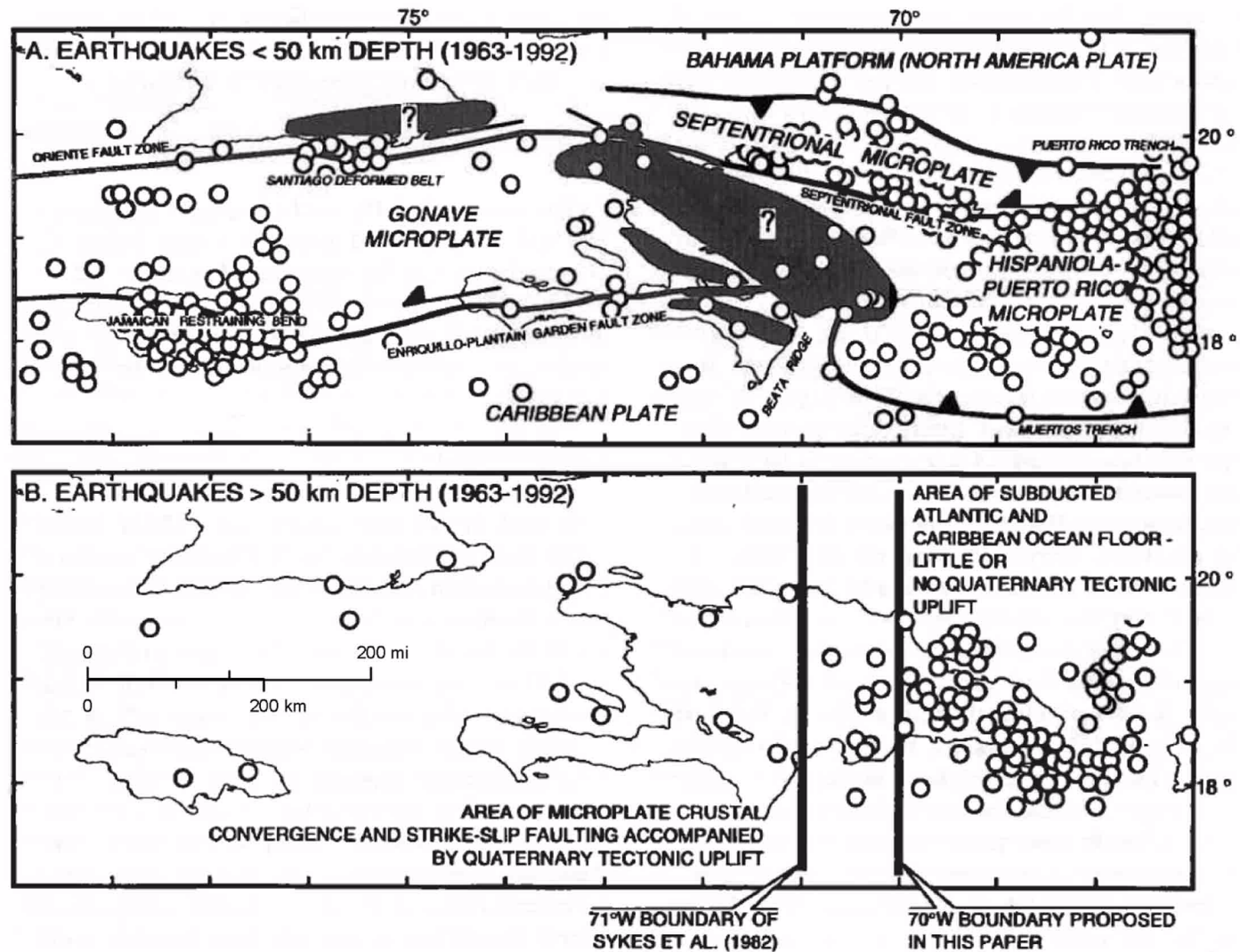
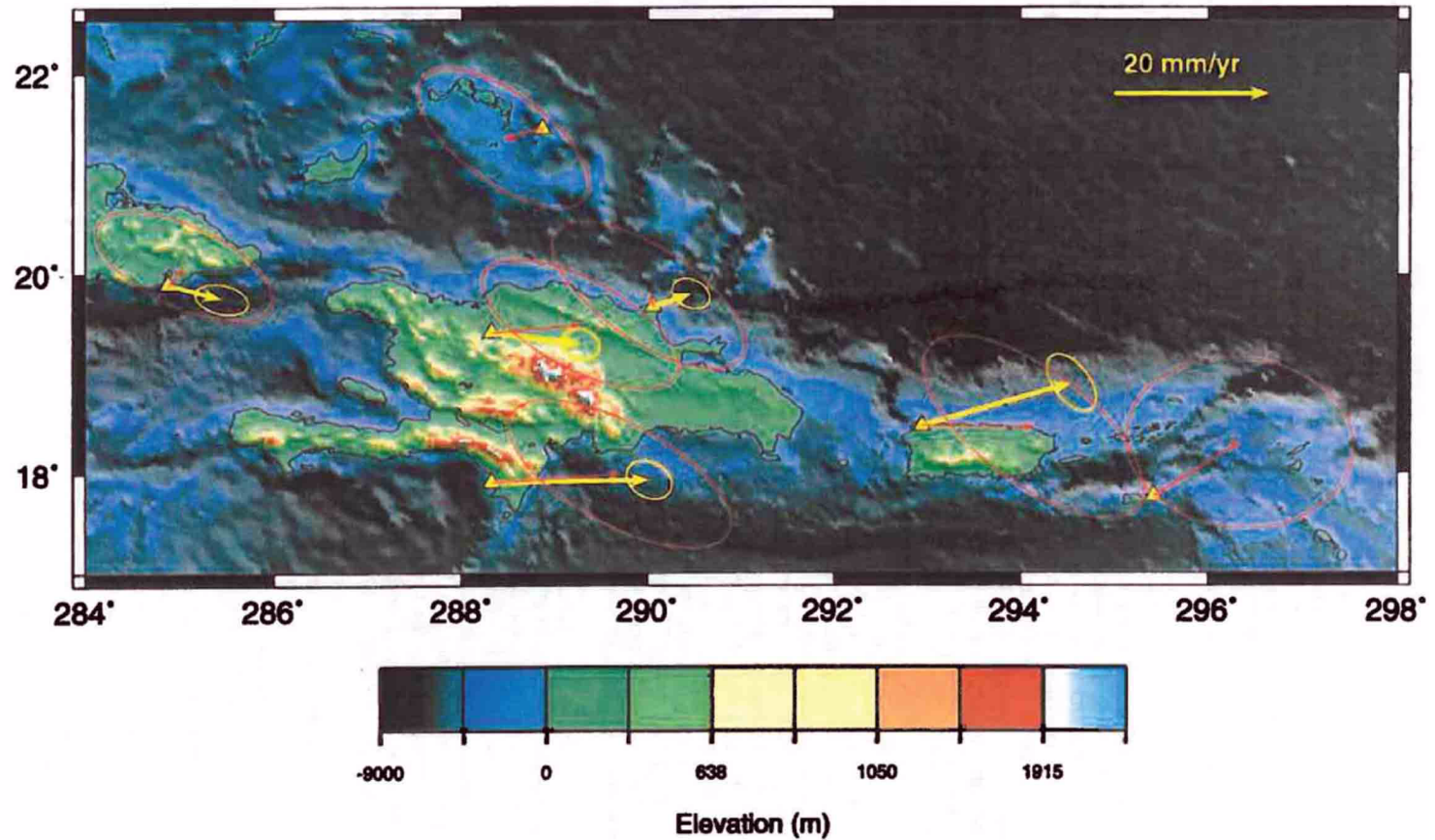


**Figure 2.5.1-323 Earthquakes by Depth and Major Plate Boundary Structures in the Northeastern Area of the North America-Caribbean Plate Boundary**



Source: Reference 639

**Figure 2.5.1-324 GPS Site Velocities with Respect to North America**

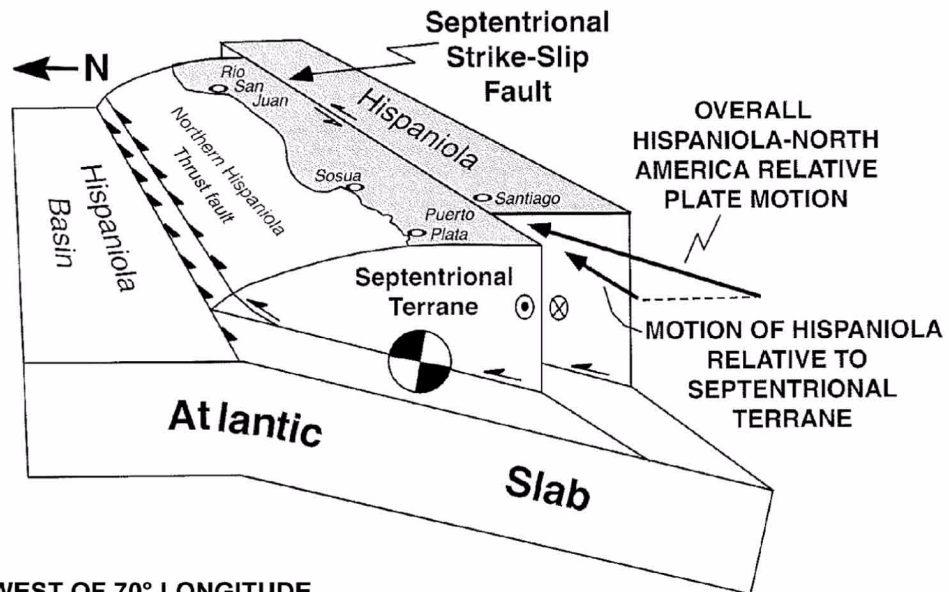


Source: [Reference 780](#)

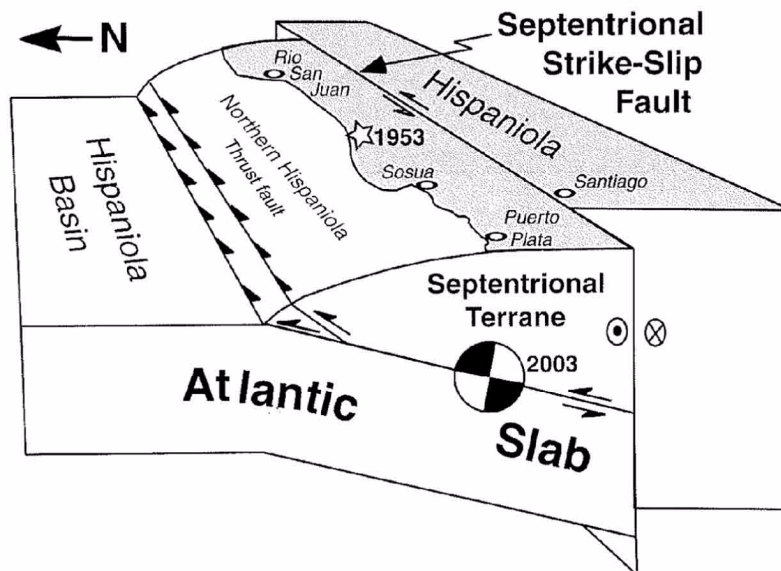


**Figure 2.5.1-325 Kinematic Illustrations Showing Interactions of Septentrional and Northern Hispaniola Faults at Depth**

**(A) EAST OF 70° LONGITUDE**



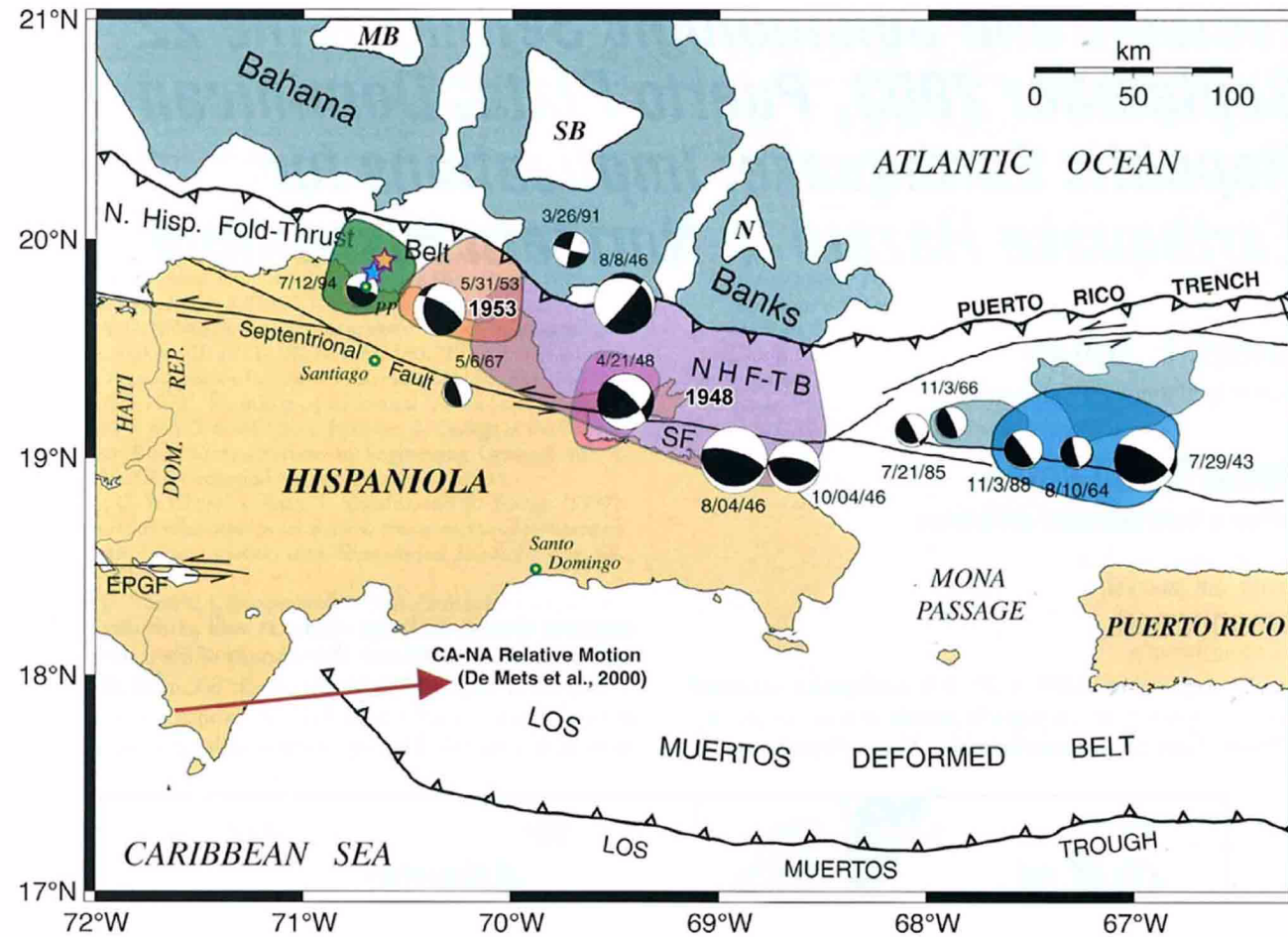
**(B) WEST OF 70° LONGITUDE**



Note: Northern Hispaniola Thrust fault is equivalent to North Hispaniola Subduction Zone.

Source: [Reference 638](#)

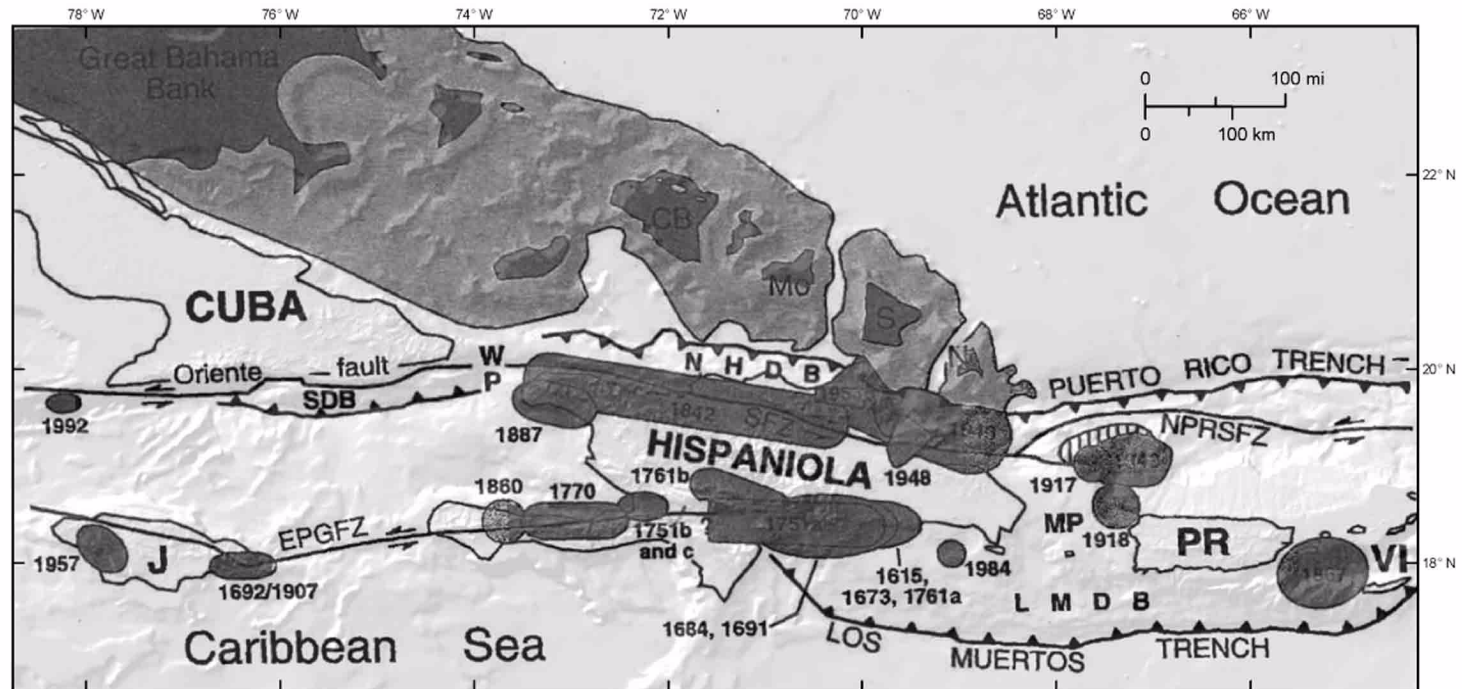
**Figure 2.5.1-326 Focal Mechanisms for Major Earthquakes in the North Hispaniola Subduction Zone**



Notes:  
EPGF = Enriquillo-Plantain Garden fault zone  
NHF-TB = Northern Hispaniola fold-thrust belt  
SF = Septentrional fault

Source: [Reference 638](#)

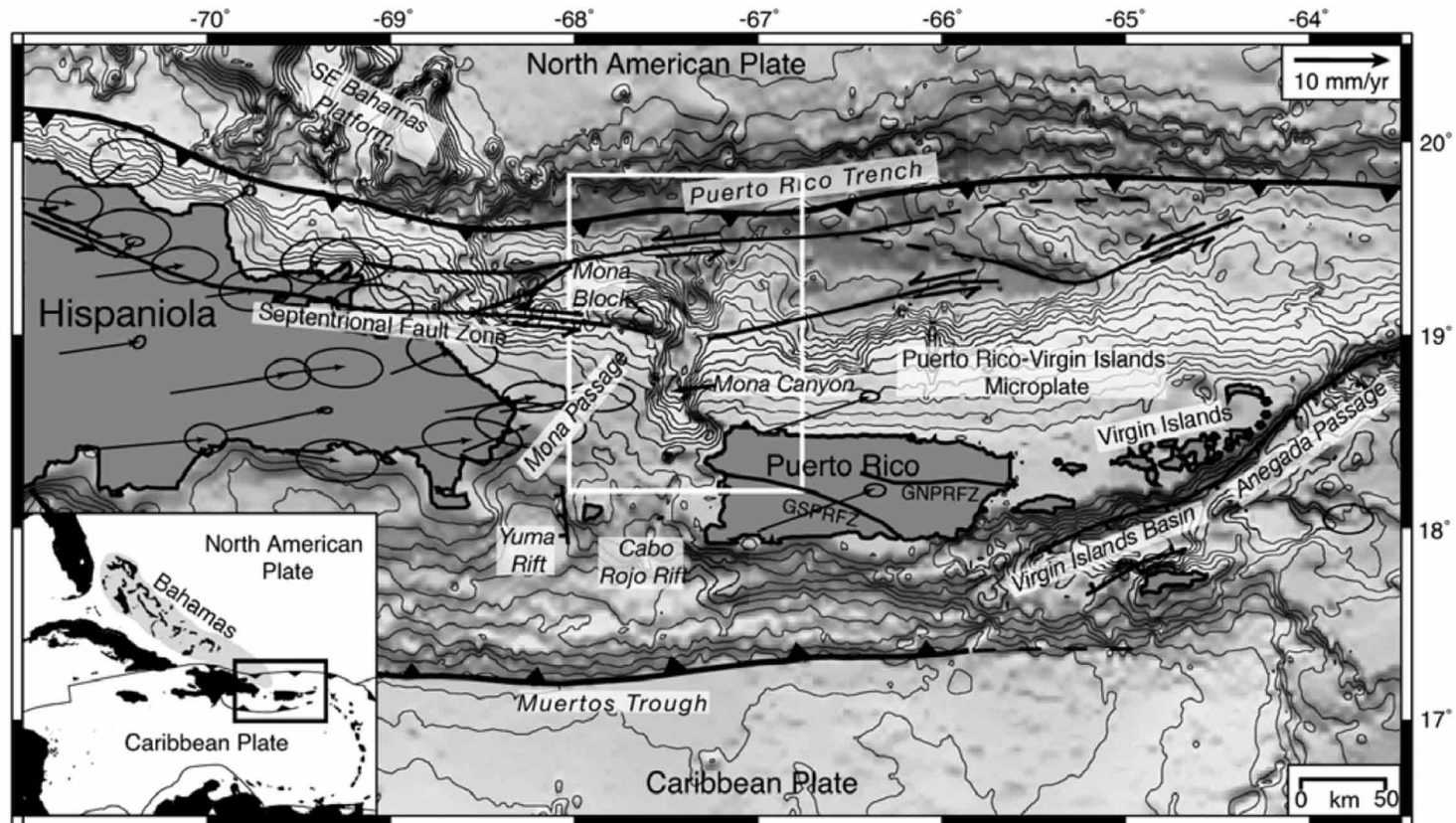
**Figure 2.5.1-327 Damage Zones for Major Earthquakes in the Northeastern Caribbean, 1615-1992**



Source: [Reference 591](#)



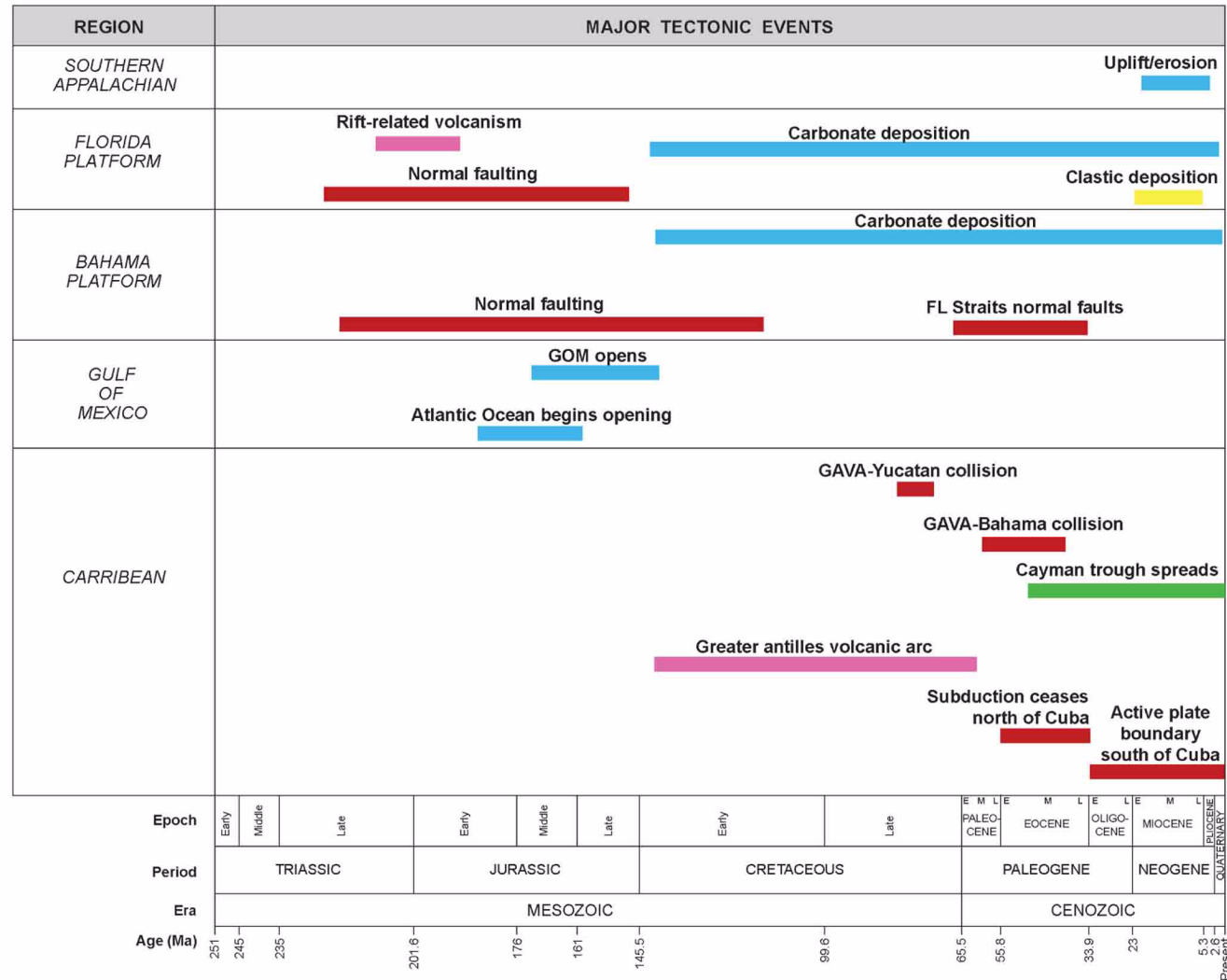
**Figure 2.5.1-328 Bathymetry, Structural Features, and GPS Vectors relative to North America, Northeastern Caribbean**



Source: [Reference 585](#)

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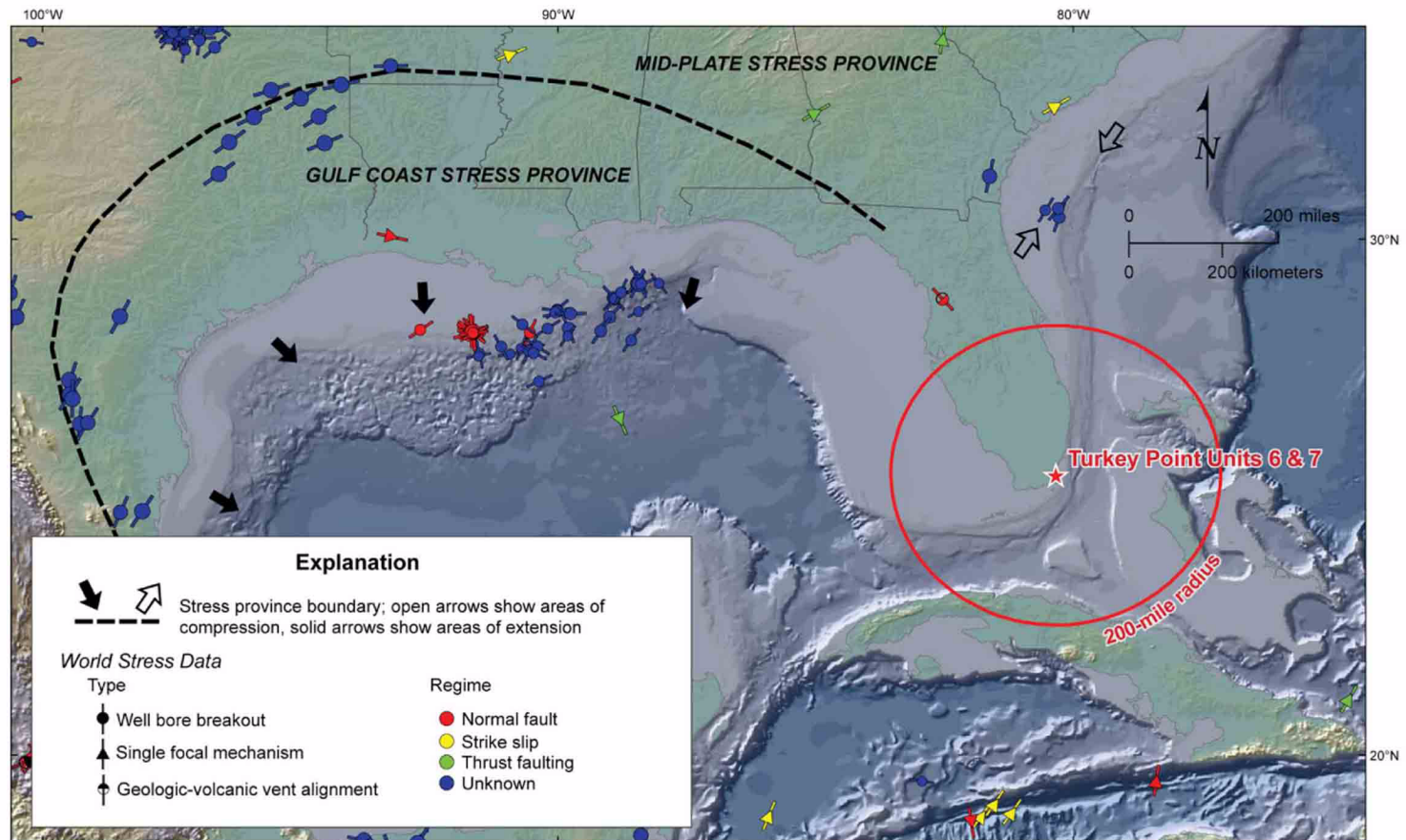
**Figure 2.5.1-329 Timeline of Regional Tectonic and Geologic Events**



Sources: References 307, 368, and 639

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Figure 2.5.1-330 North America Stress Provinces

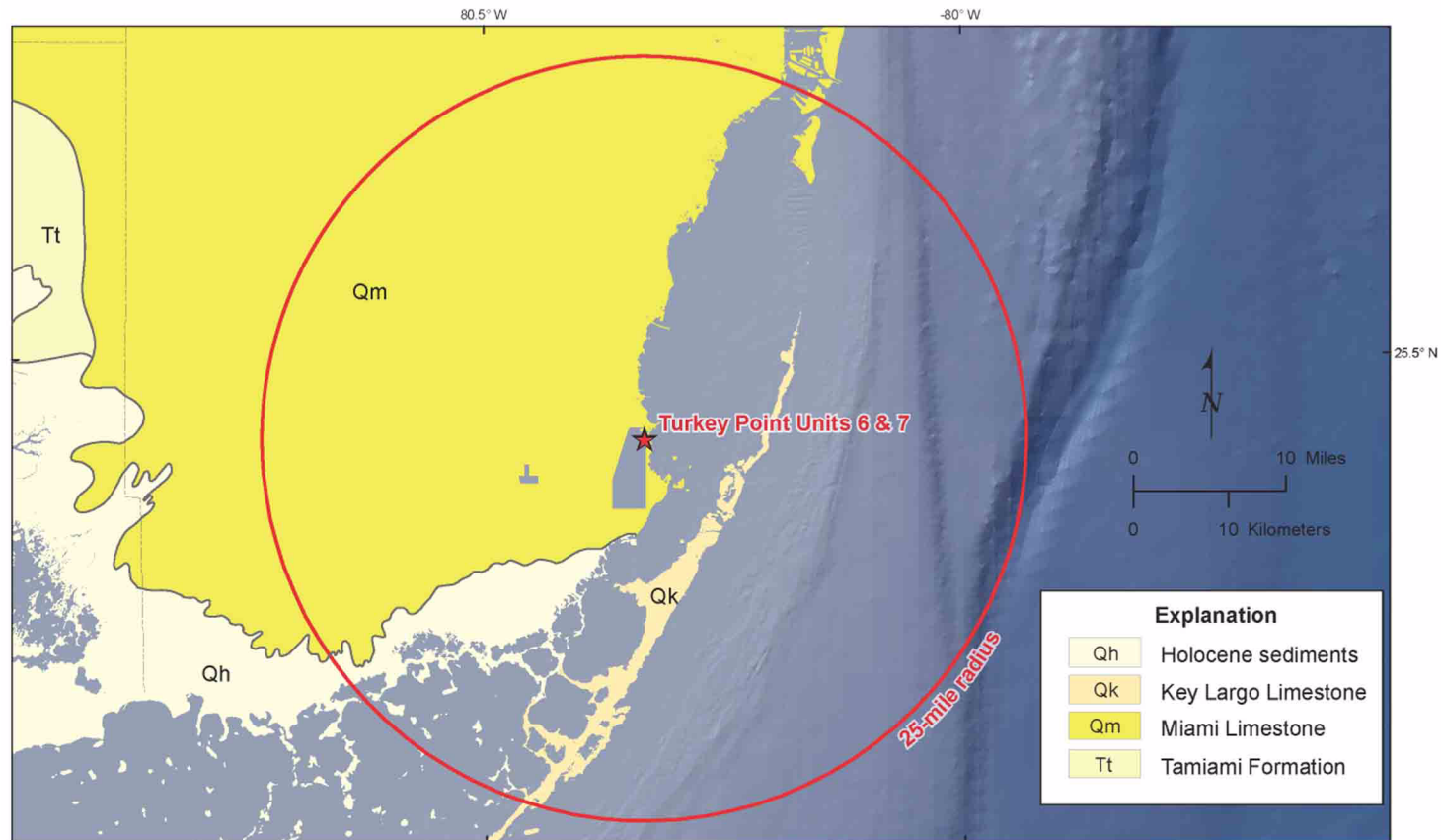


Base Source: [Reference 822](#)  
Source of world stress data: [Reference 731](#)



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**Figure 2.5.1-331 Site Vicinity Geologic Map**



Base sources: [Reference 435](#)

Source of geologic information: [Reference 827](#)

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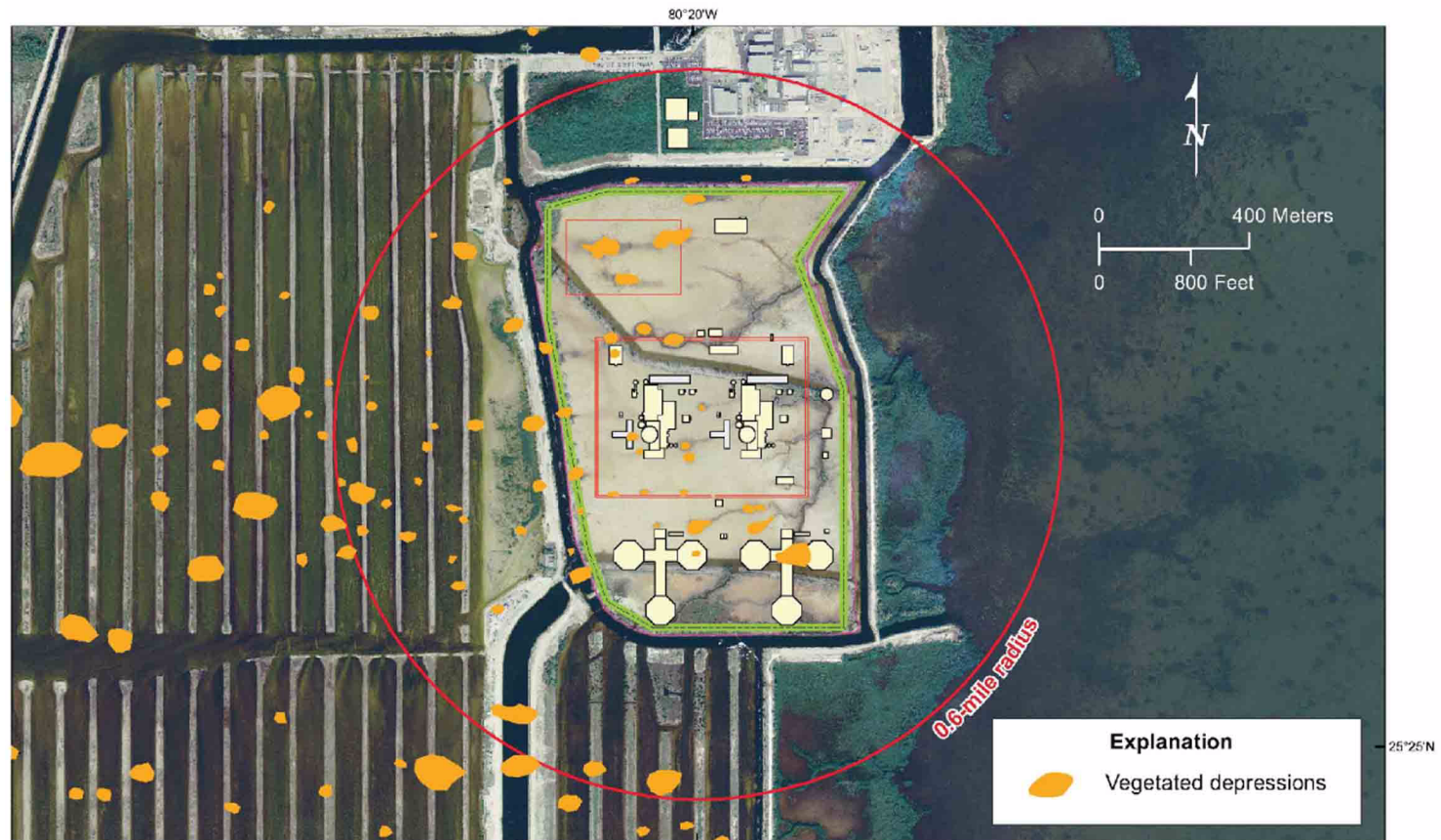
**Figure 2.5.1-332 Site Stratigraphy**

ERATHEM	SYSTEM	SERIES	HYDRO- GEOLOGIC UNIT		STRATIGRAPHIC UNIT	LITHOLOGY	APPROXIMATE TOP ELEVATION (ft NAVD 88)	APPROXIMATE THICKNESS (ft)
CENOZOIC	QUATERNARY	HOLOCENE			organic muck	organic soil and silt	0	3
		PLEISTOCENE	Surficial aquifer system	Biscayne aquifer	Miami Limestone	sandy, oolitic limestone	-3	25
					Key Largo Limestone	well indurated, vuggy, coralline limestone	-28	22
					Fort Thompson Formation	poor/well indurated fossiliferous limestone	-50	65
	TERTIARY	PLIOCENE			Semi-confining unit	Tamiami Formation	sand and silt with calcarenitic limestone	-115
		MIOCENE	Intermediate confining unit	Hawthorn Group	Peace River Formation	silty calcareous sand and silt	-220	235
					Arcadia Formation	calcareous wackestone with indurated limestones, sandstone, and sand	-455	>160
							drilling ended at -616.5 ft	

Note: see Figures 2.5.1-338, 2.5.1-339, 2.5.1-340, and 2.5.1-341 for site geologic cross sections.

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**Figure 2.5.1-333 Vegetated Depressions Identified Within Site from Photographs Taken Before Construction of the Cooling Canal System**

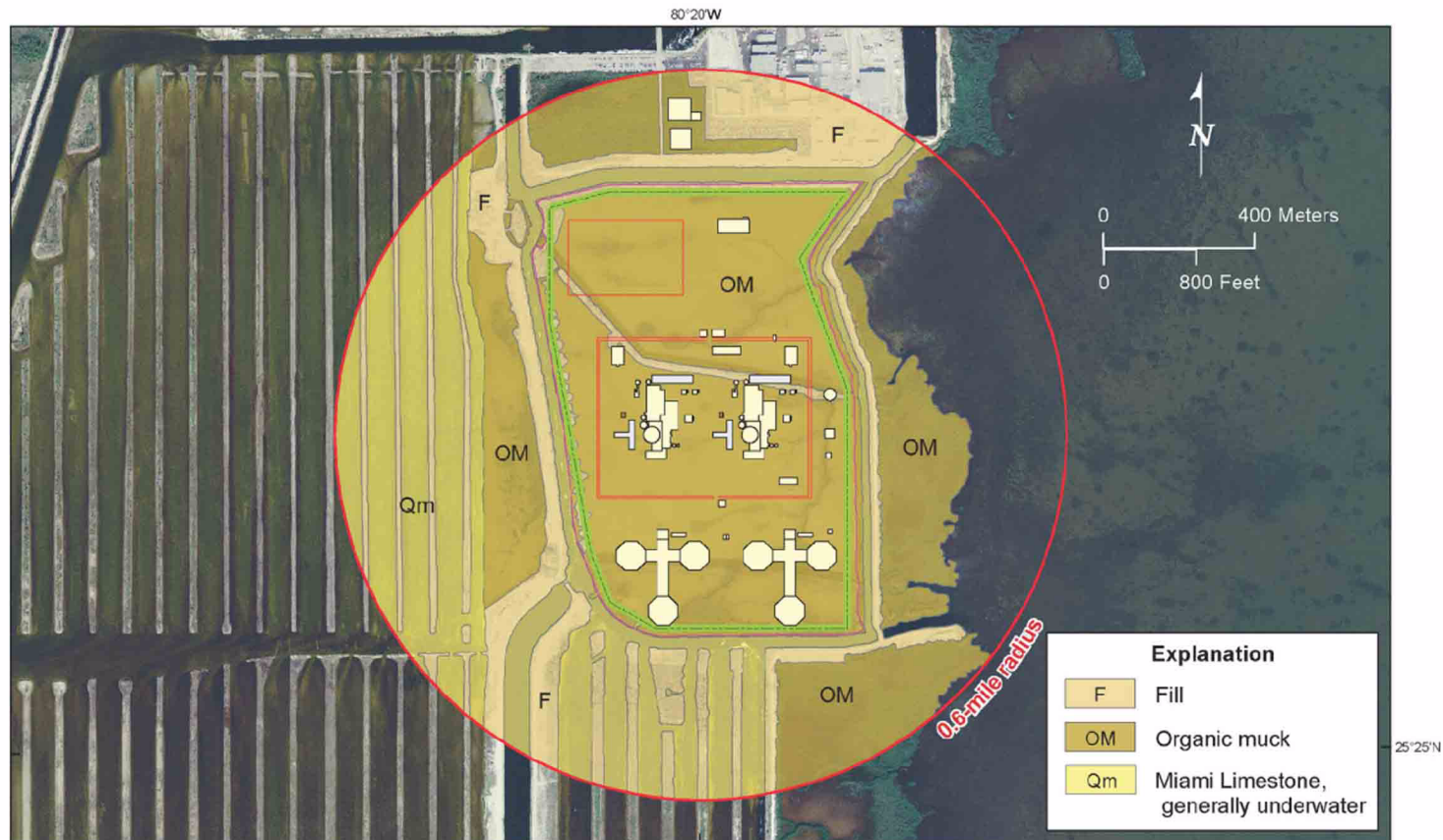


Note: Reconnaissance mapping performed using 1940s 1:40,000 scale panchromatic stereo aerial photography ([Reference 386](#)), but shown on 2004 imagery ([Reference 435](#)) of the Units 6 & 7 site for reference.



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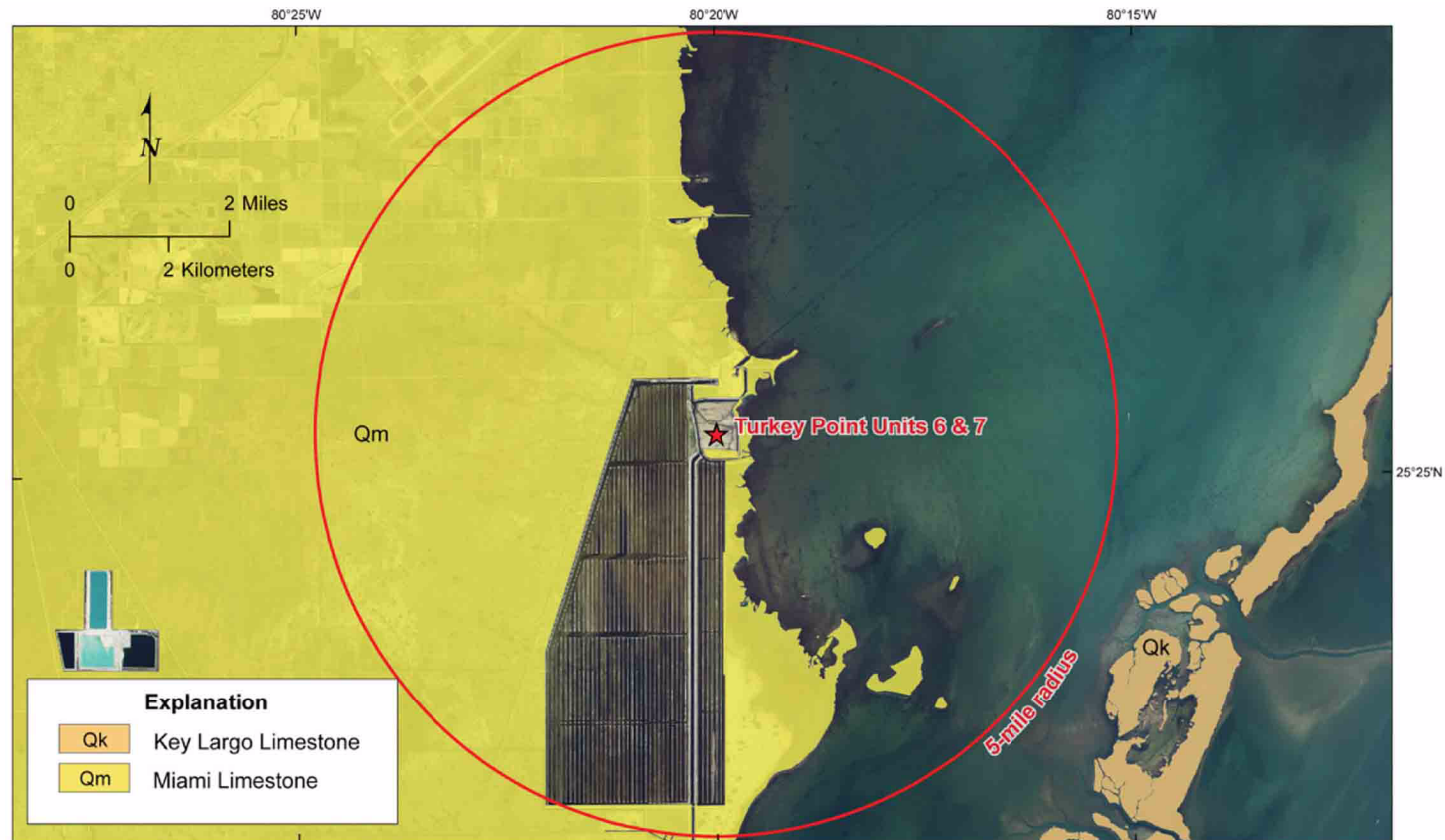
**Figure 2.5.1-334 Site Geologic Map**



Base sources: [References 829](#), and [435](#)  
Source of geologic information: [Reference 827](#)

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**Figure 2.5.1-335 Site Area Geologic Map**

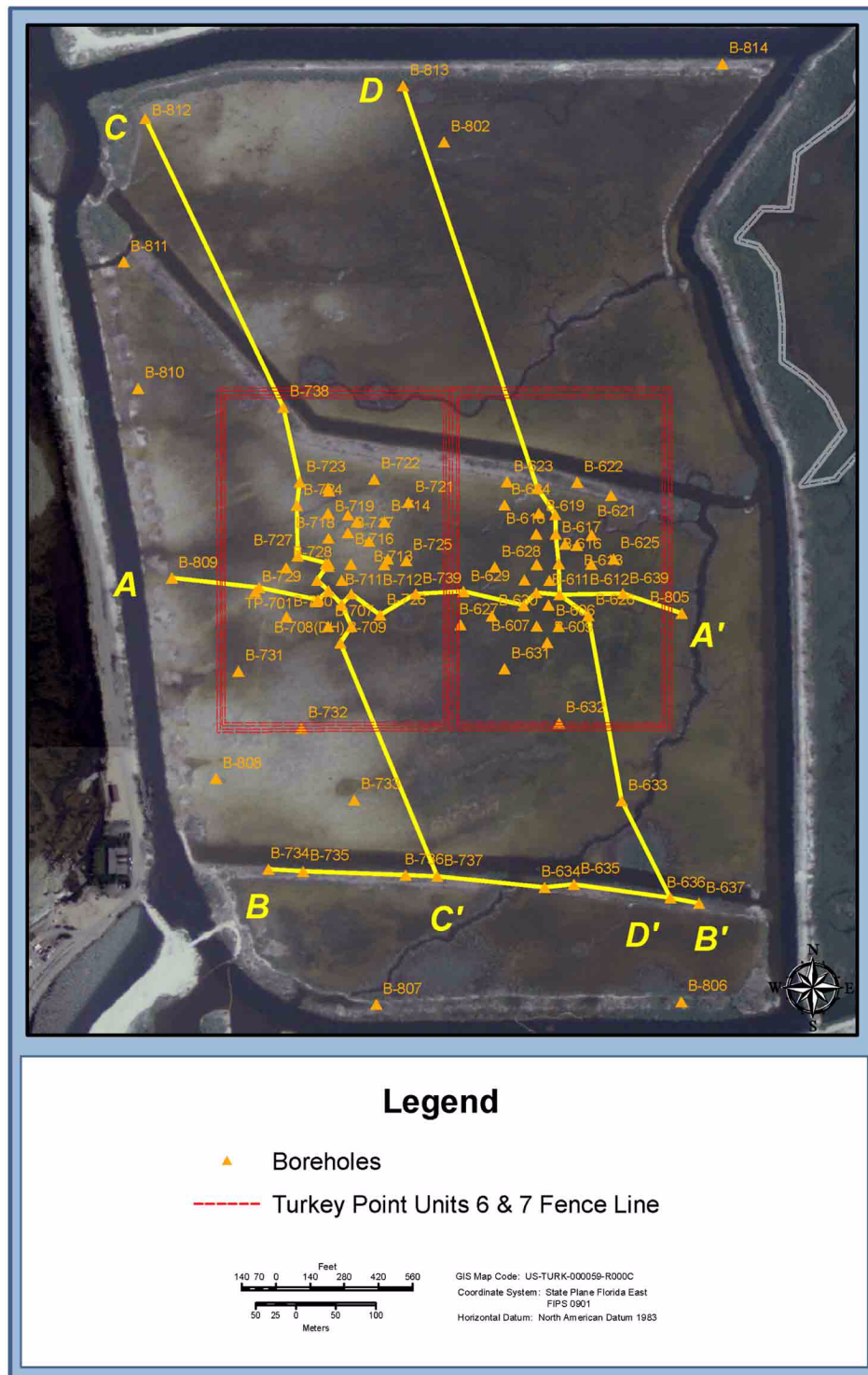


Base sources: [Reference 435](#)

Source of geologic information: [Reference 219](#)

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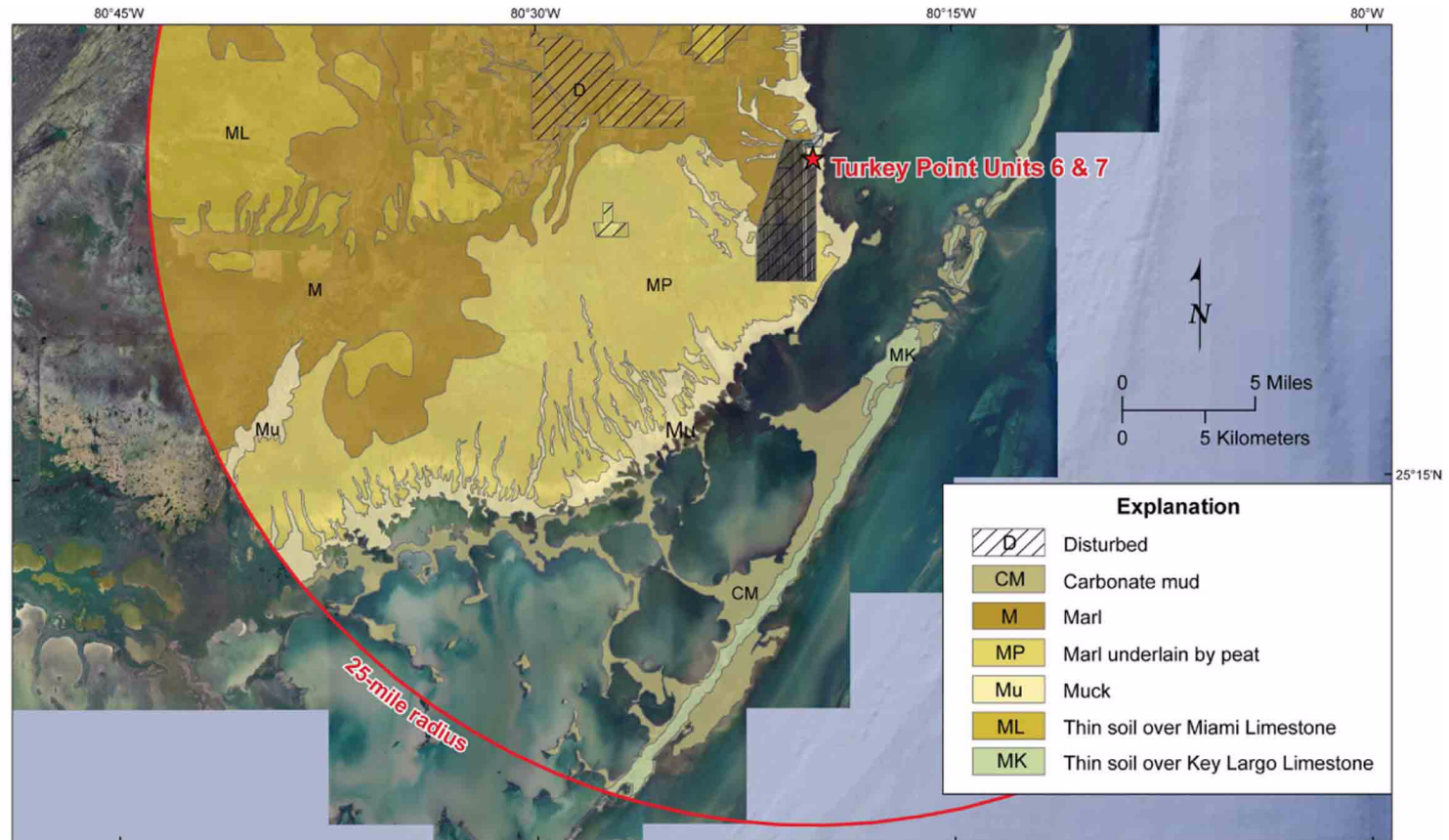
**Figure 2.5.1-336 Locations of Geologic Cross Sections**





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**Figure 2.5.1-337 Surficial Deposits Map**

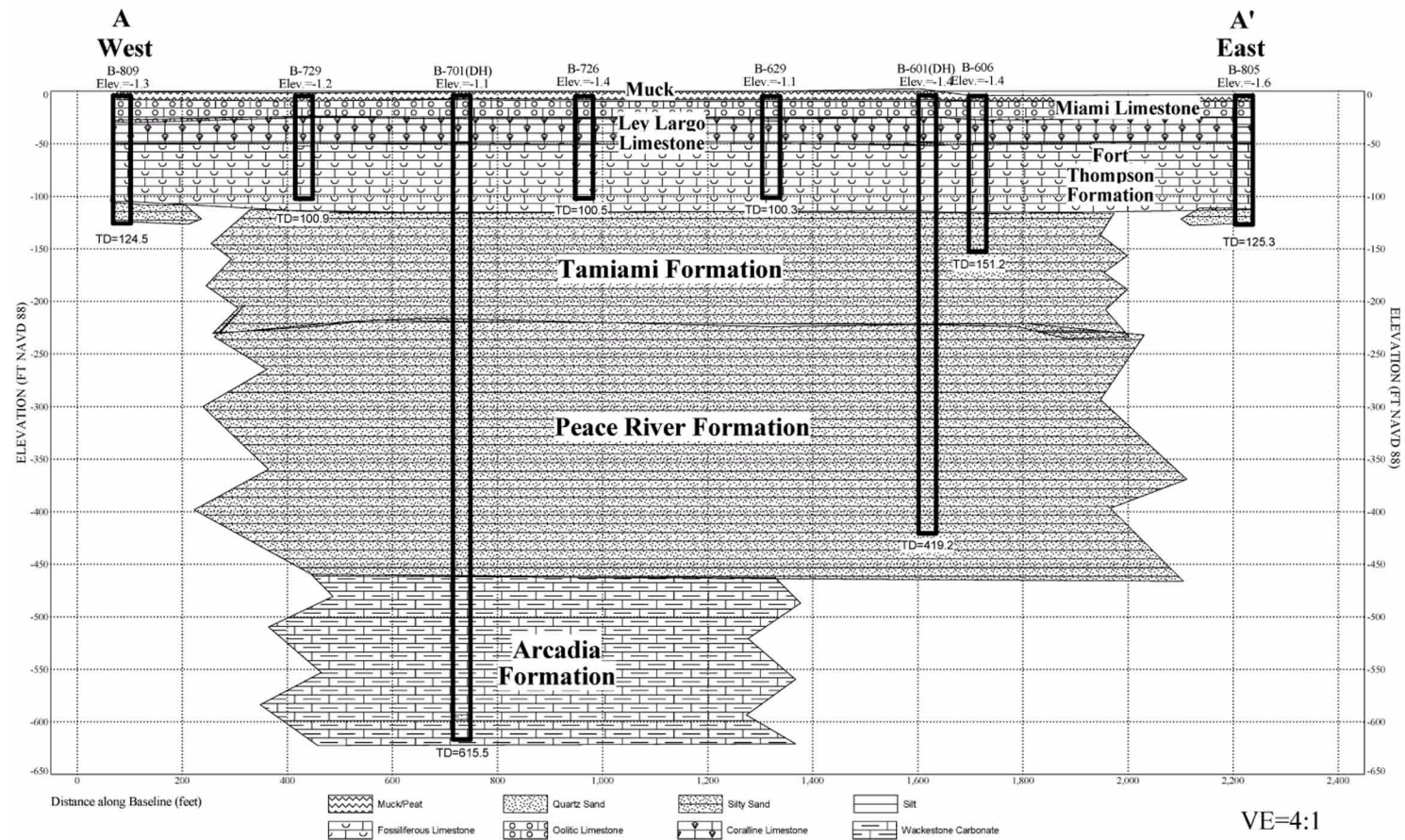


Base sources: [Reference 829](#)

Source of geologic information: [References 715](#) and [830](#)

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Figure 2.5.1-338 Geologic Cross Section A-A'

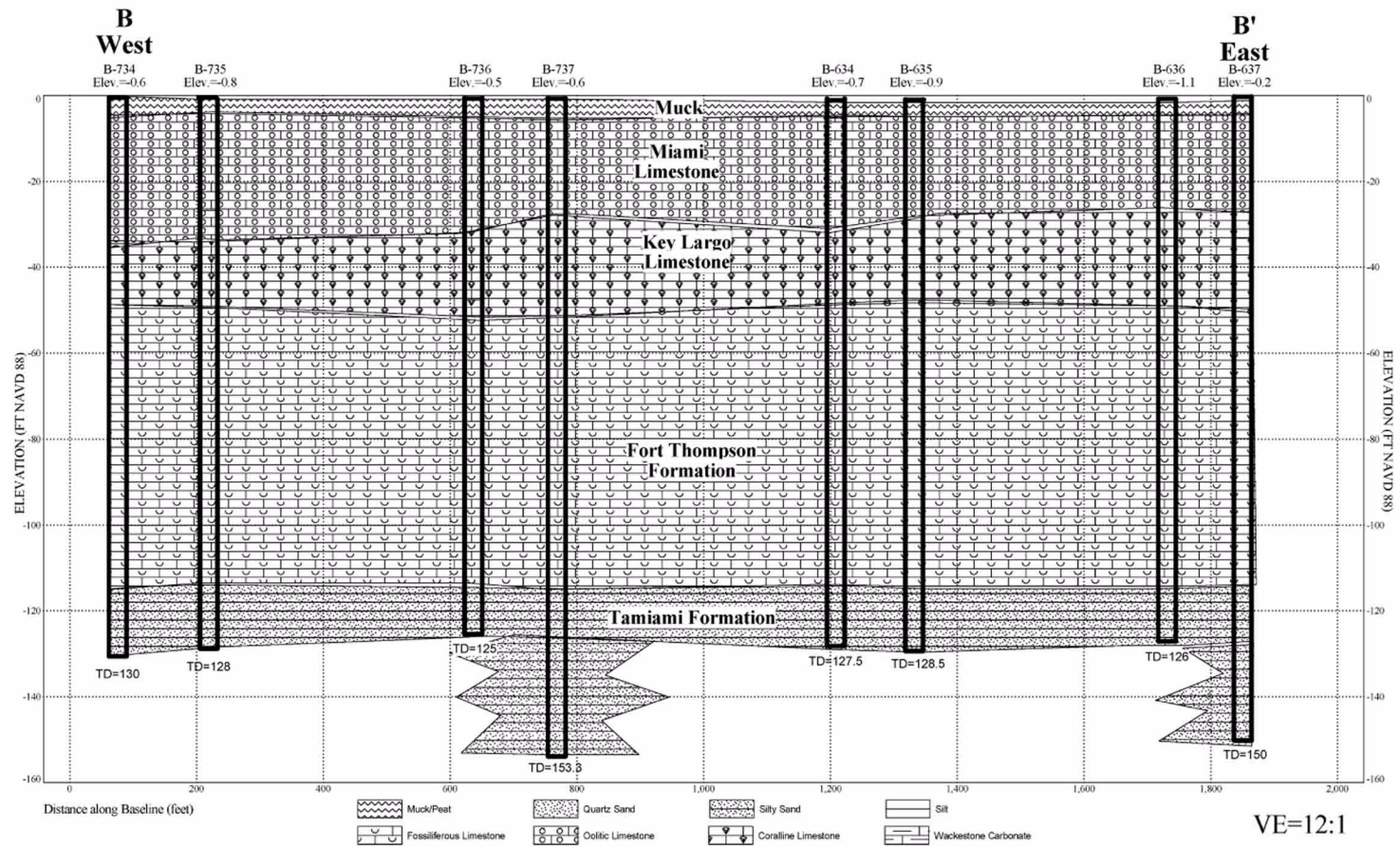


Note: The location of this cross section is shown on [Figure 2.5.1-336](#).



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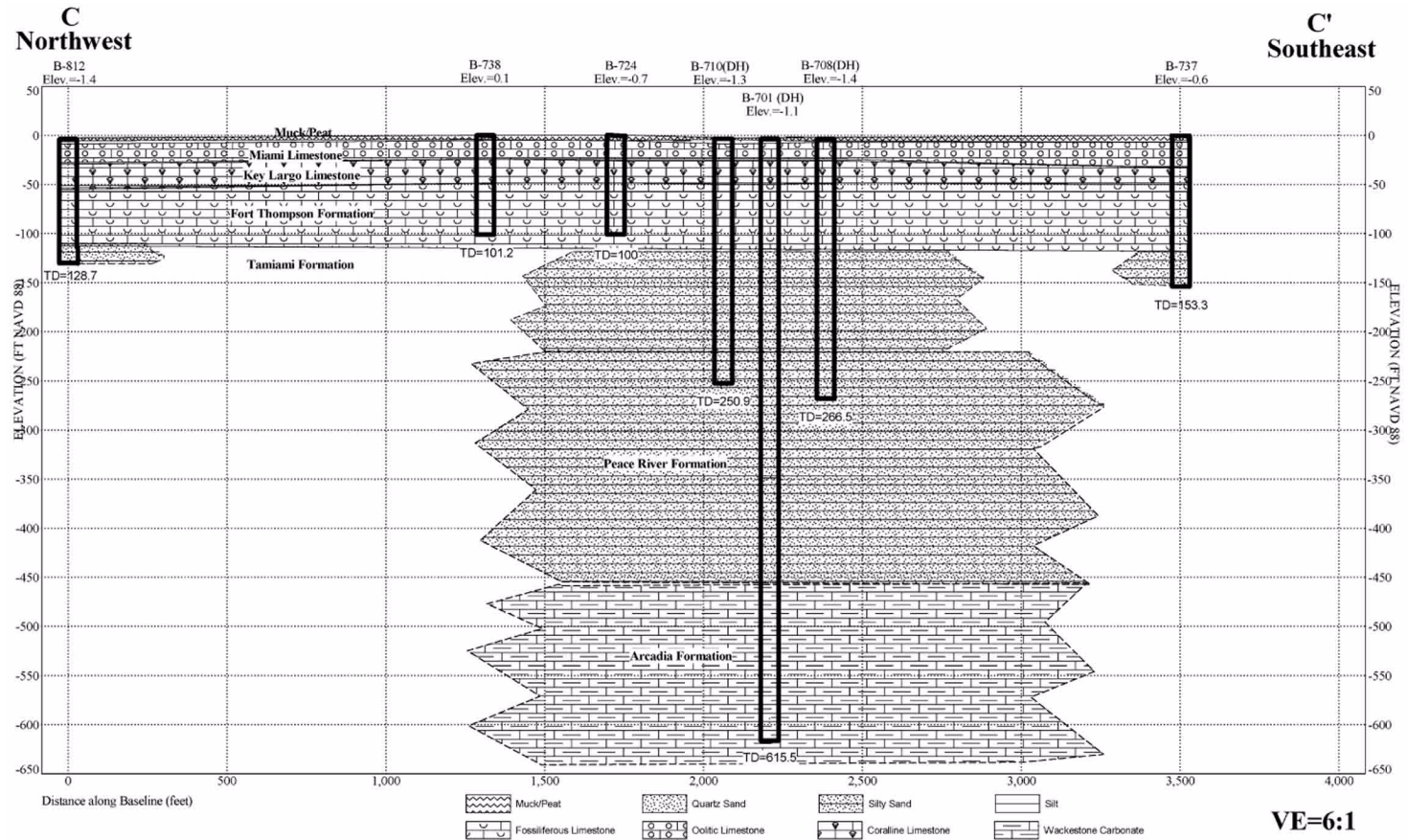
Figure 2.5.1-339 Geologic Cross Section B-B'



Note: The location of this cross section is shown on [Figure 2.5.1-336](#).

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Figure 2.5.1-340 Geologic Cross Section C-C'

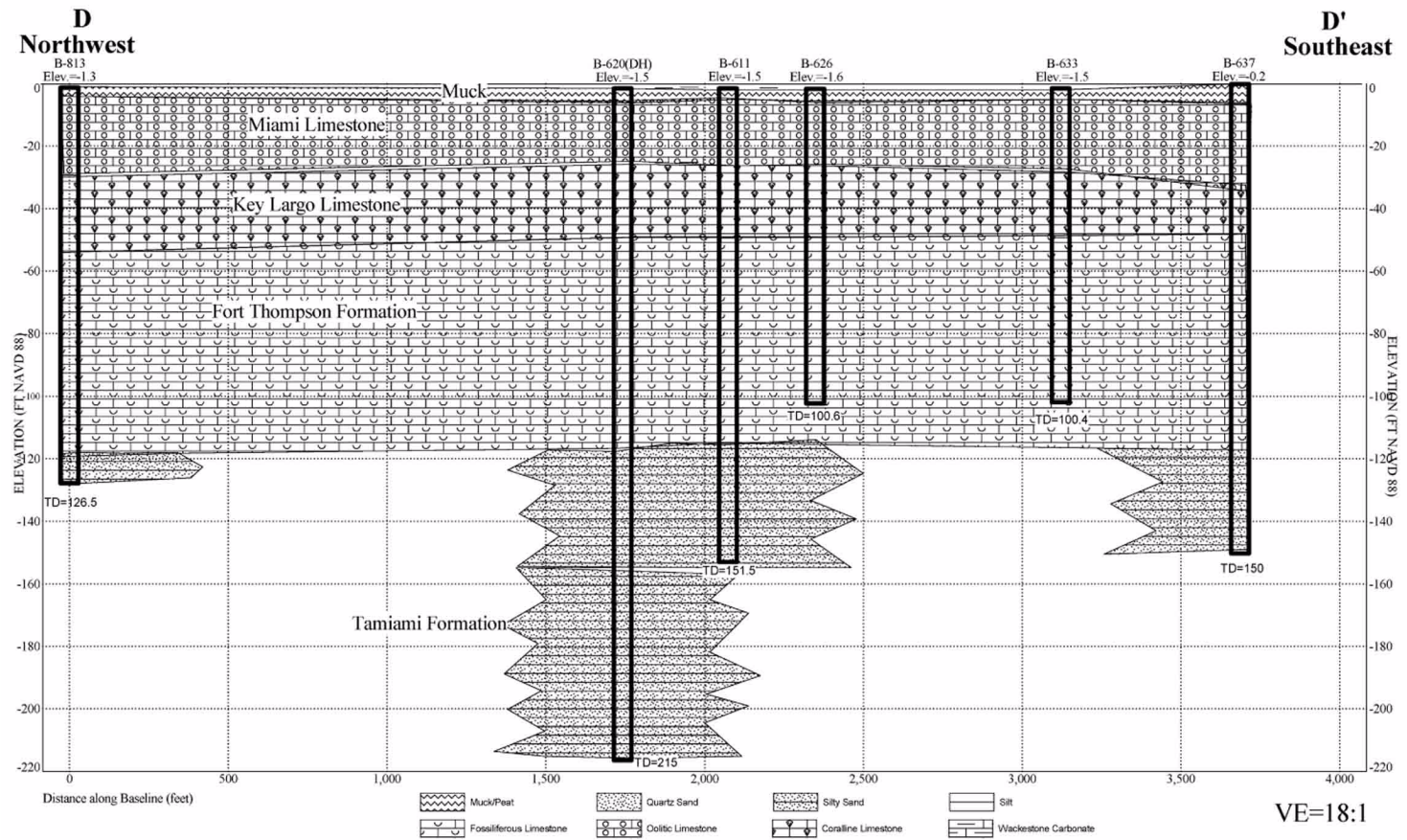


Note: The location of this cross section is shown on [Figure 2.5.1-336](#).



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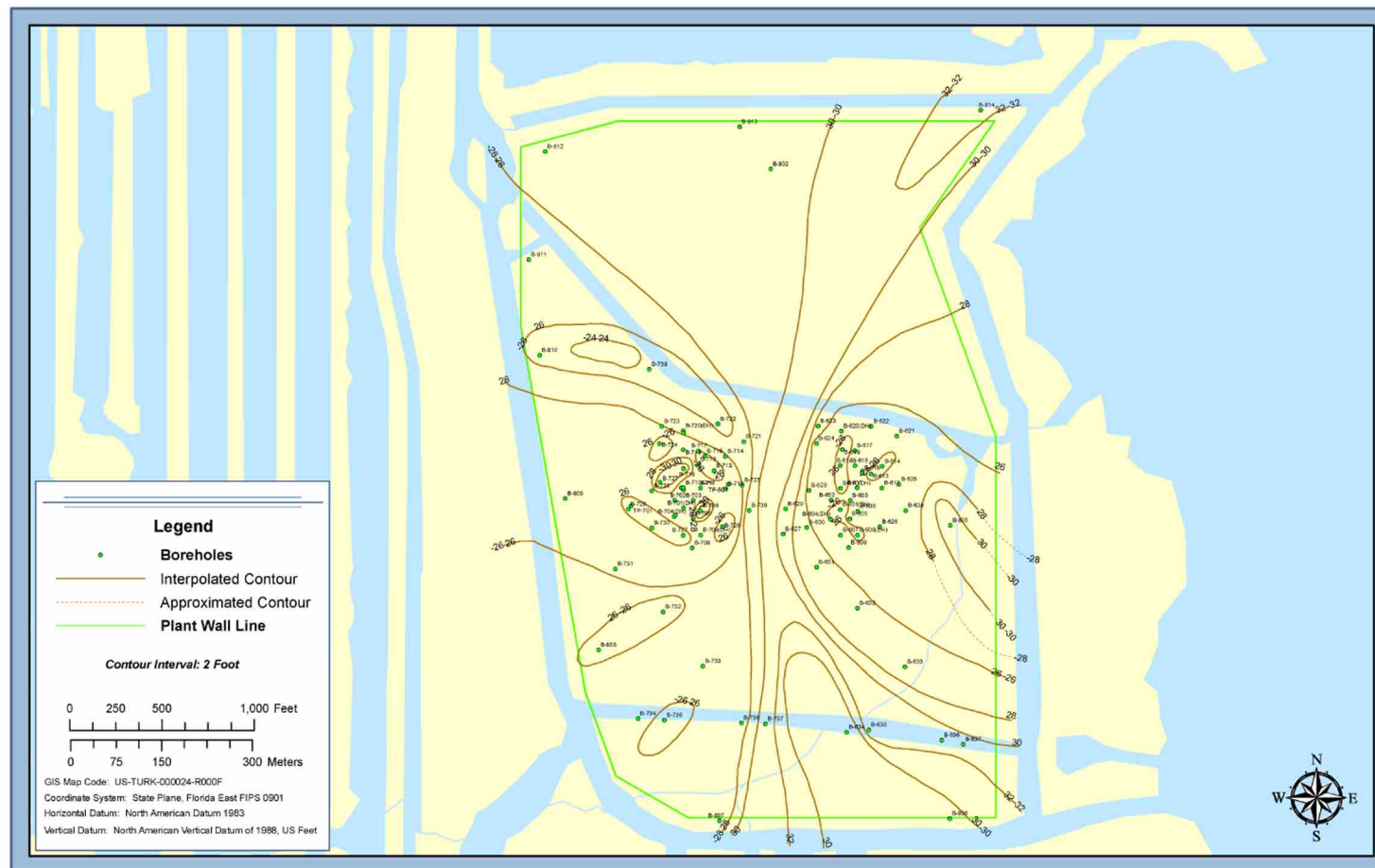
Figure 2.5.1-341 Geologic Cross Section D-D'



Note: The location of this cross section is shown on [Figure 2.5.1-336](#).

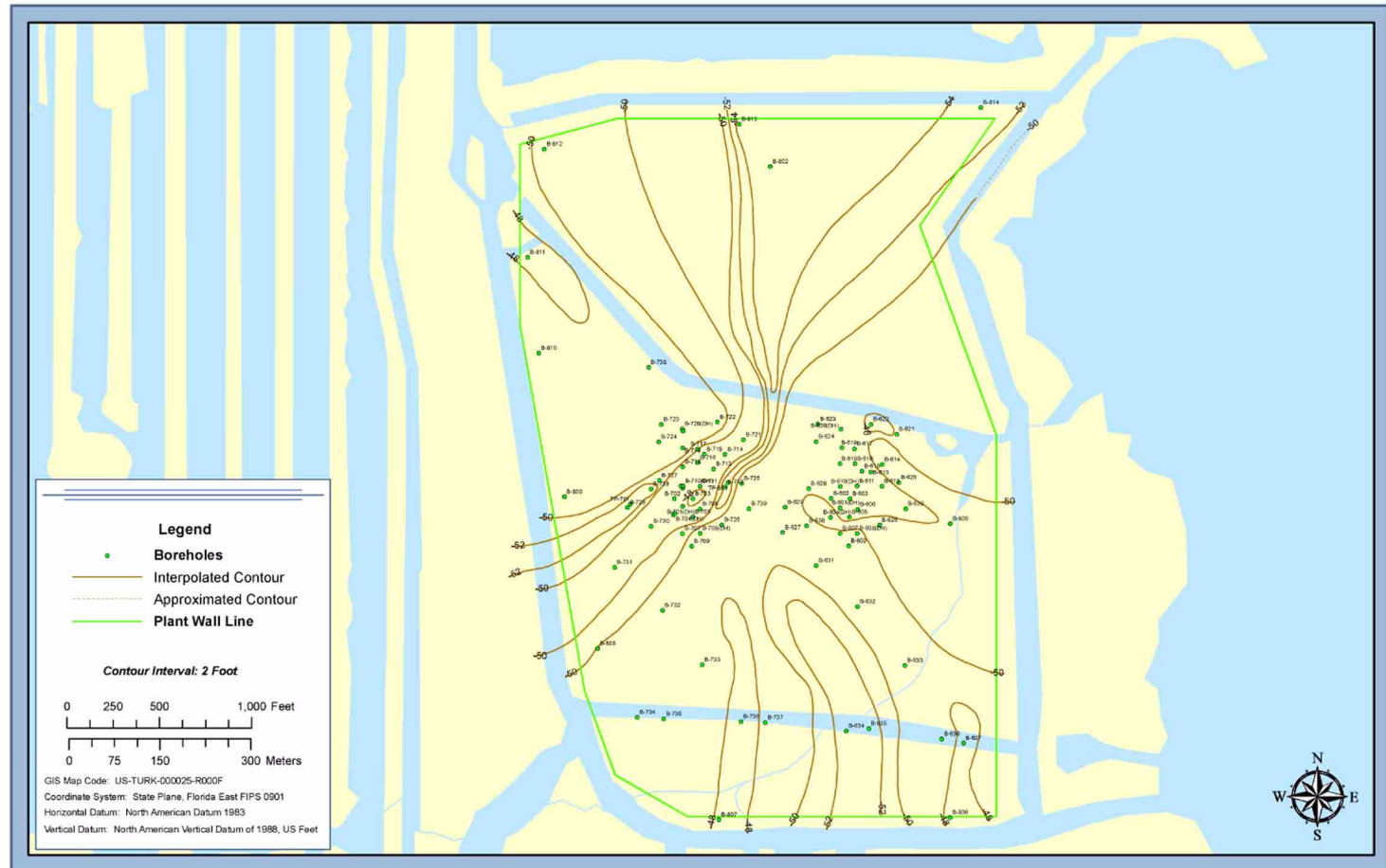
Turkey Point Units 6 & 7  
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**Figure 2.5.1-342 Isopach of the Site: Key Largo Limestone**



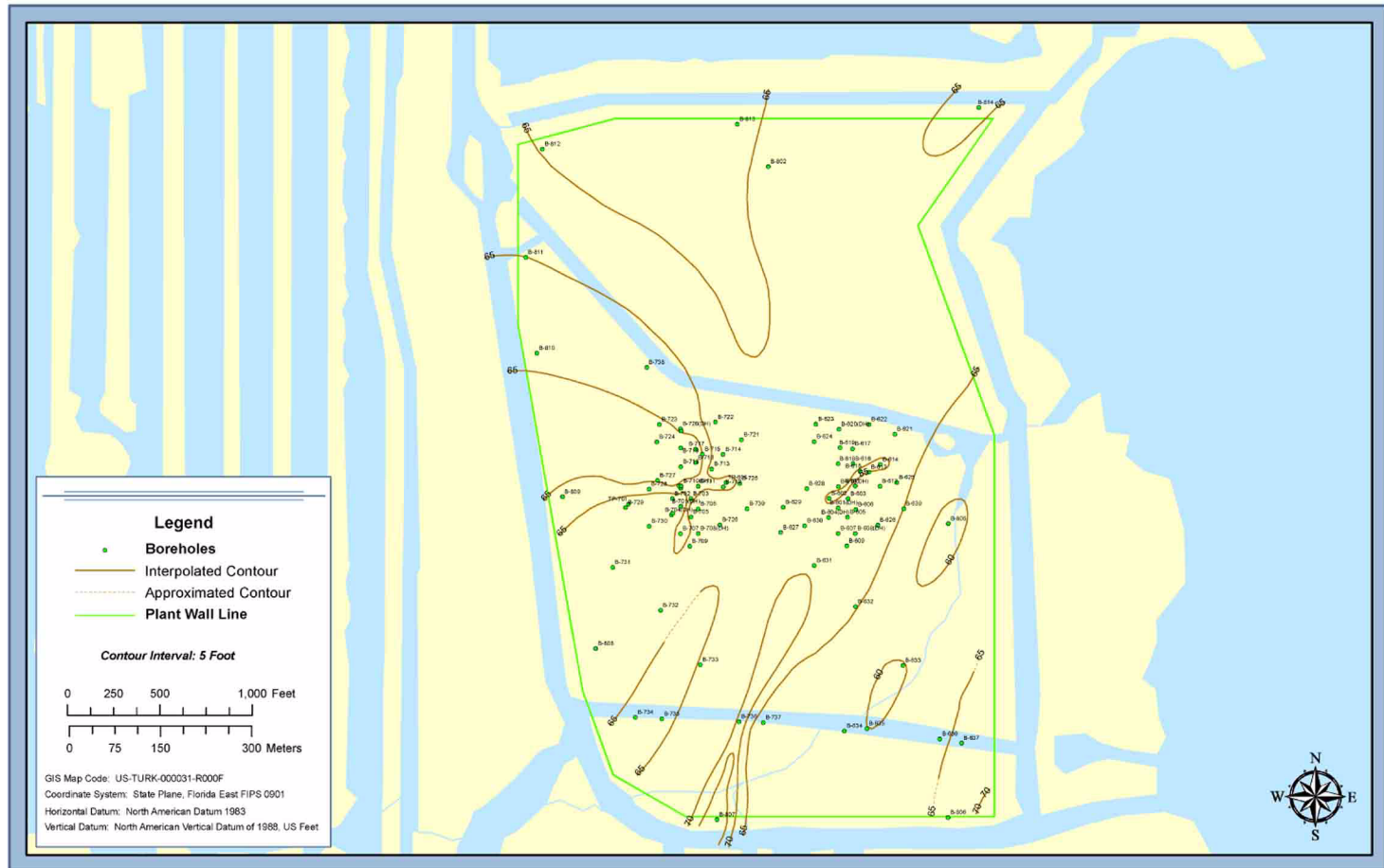
Turkey Point Units 6 & 7  
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**Figure 2.5.1-343 Structure Contour Map: Top of Fort Thompson Formation**



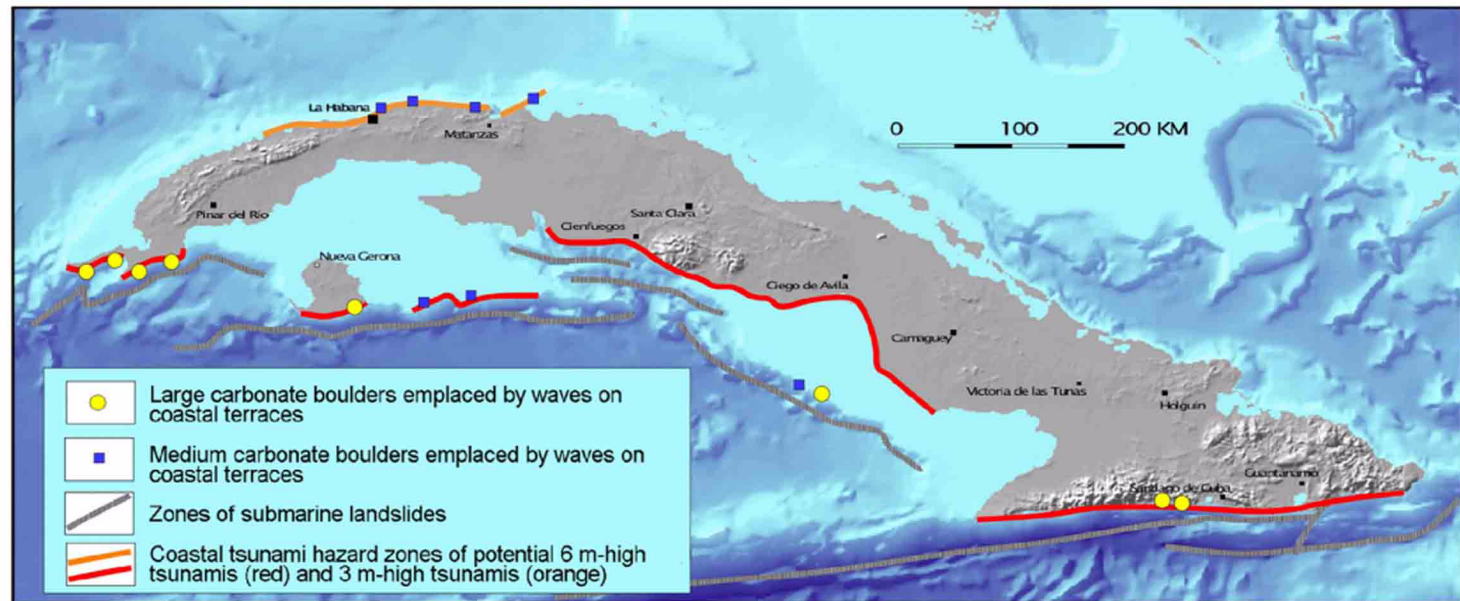
Turkey Point Units 6 & 7  
COL Application  
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Figure 2.5.1-344 Isopach of the Site: Fort Thompson Formation



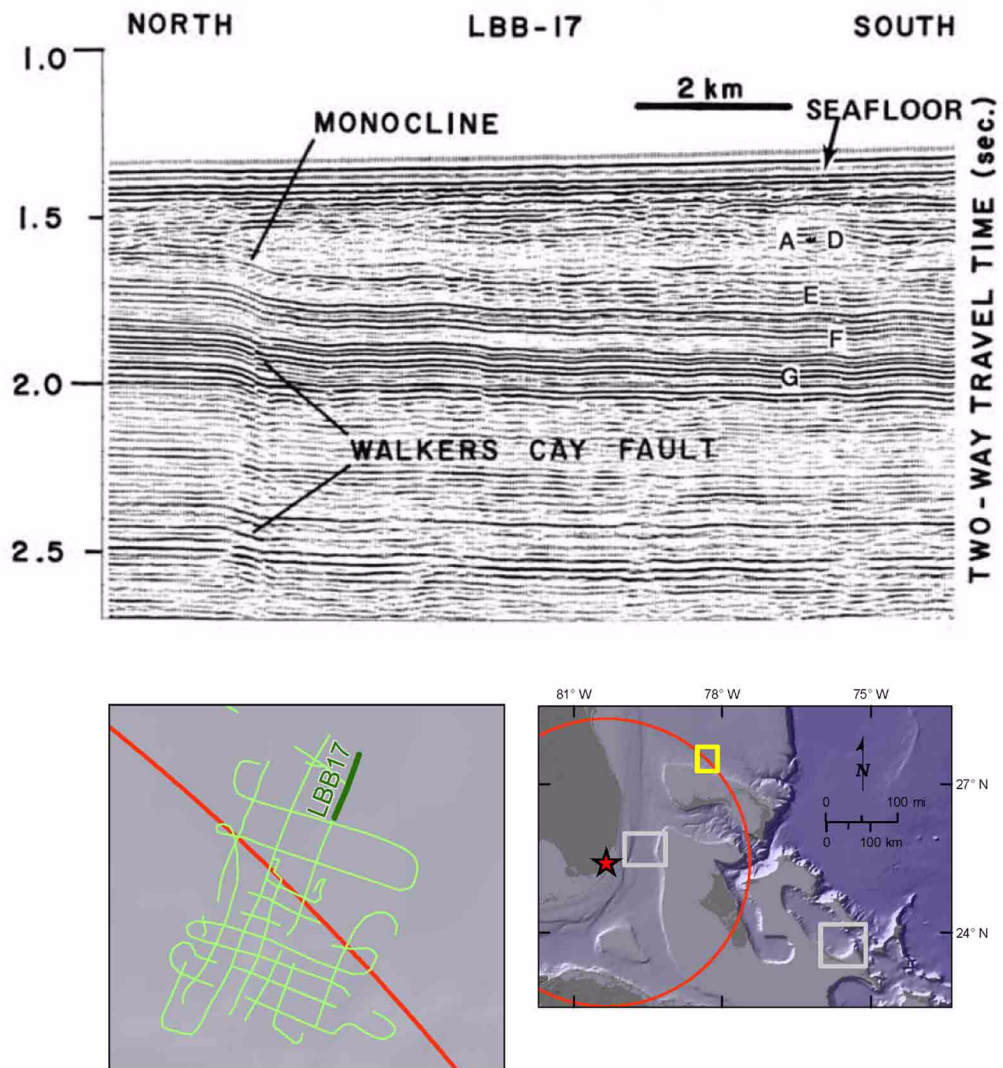


**Figure 2.5.1-345 Geologic Hazards for Coastal Zones of Cuba**



Modified from: [Reference 742](#)

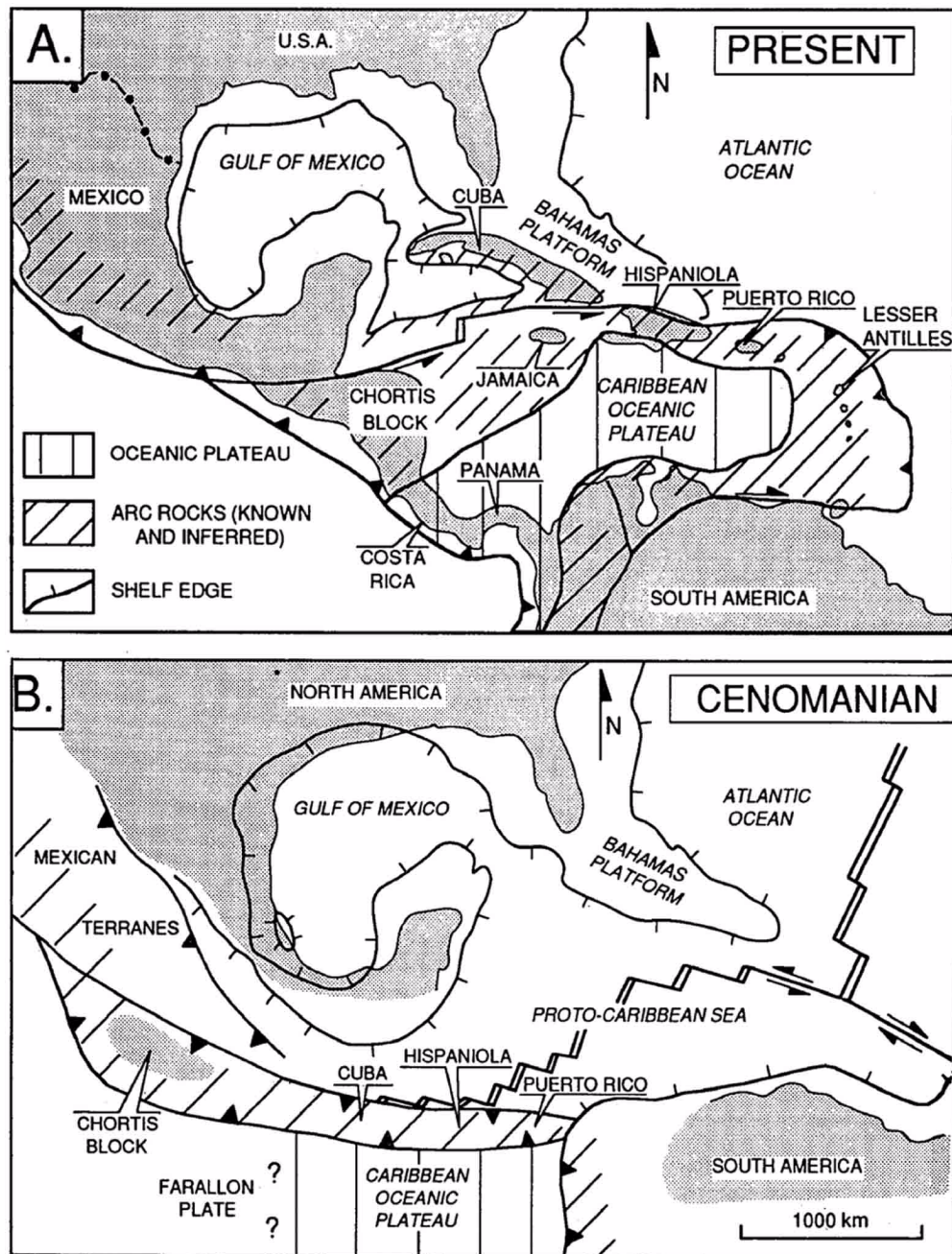
**Figure 2.5.1-346 Interpreted Seismic Line across the Edge of the Little Bahama Bank**



Note: Sequence G (the shallow-water carbonate platform sampled at Site 627) is offset, while sequences A-F thicken across the fault trace, suggesting syn-sedimentary movement.

Modified from: [Reference 785](#)

**Figure 2.5.1-347 Initiation of the Greater Antilles Arc and Collision with the Caribbean Oceanic Plateau**

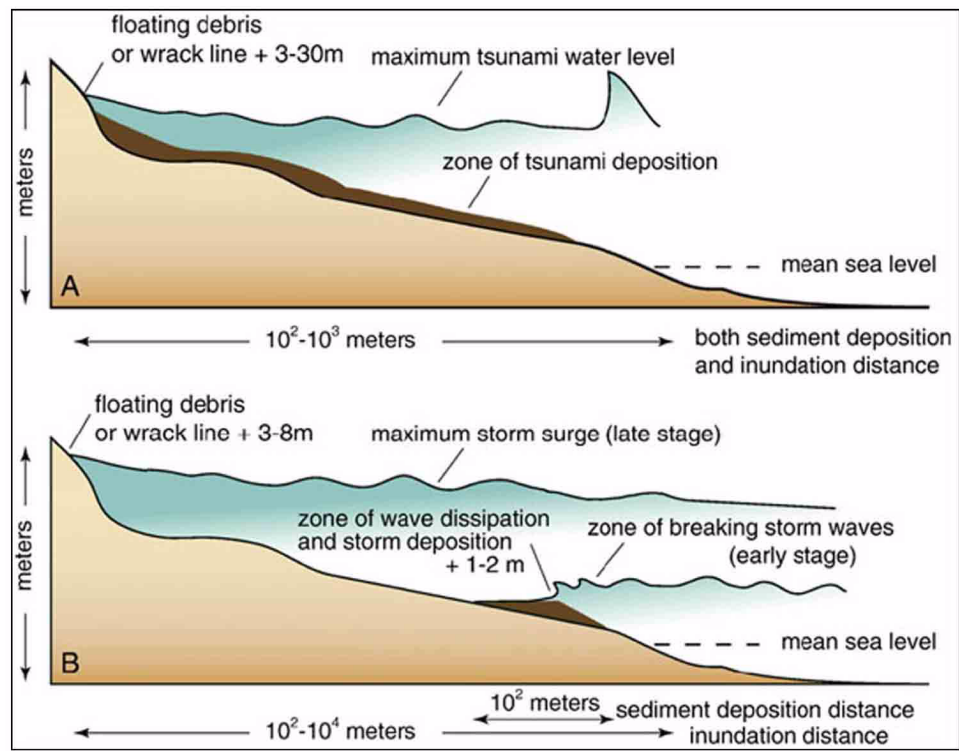


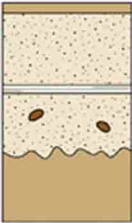

**Notes:**

- A. Present-day distribution of Cretaceous to Recent island arc and late Cretaceous oceanic plateau crust in the Caribbean.
- B. Mid-Cretaceous (Cenomanian) reconstruction of the Caribbean island arc and oceanic plateau

Source: [Reference 833](#)

**Figure 2.5.1-348 Tsunami Sediments**



C. Typical tsunami deposit	Typical storm deposit
 <ul style="list-style-type: none"> <li>• mudcap</li> <li>• lamina sets may be separated by thin mud or heavy mineral lamina</li> <li>• often normally graded</li> <li>• rip up clasts</li> <li>• 5-25 cm thick</li> <li>• abrupt lower contact</li> </ul>	 <ul style="list-style-type: none"> <li>• mudcap rare</li> <li>• may have foresets, troughs, climbing ripples</li> <li>• planar stratification</li> <li>• many laminae and laminasets</li> <li>• 25-200 cm thick</li> <li>• abrupt lower contact</li> </ul>

Notes:

A and B. Comparison of typical inundation distances, sediment-transport distances, and maximum water levels (indicated by height of wrack line) for deposition by tsunamis (A) and coastal storms (B)

C. Composite characteristics of typical sandy tsunami and storm deposits

Source: [Reference 890](#)