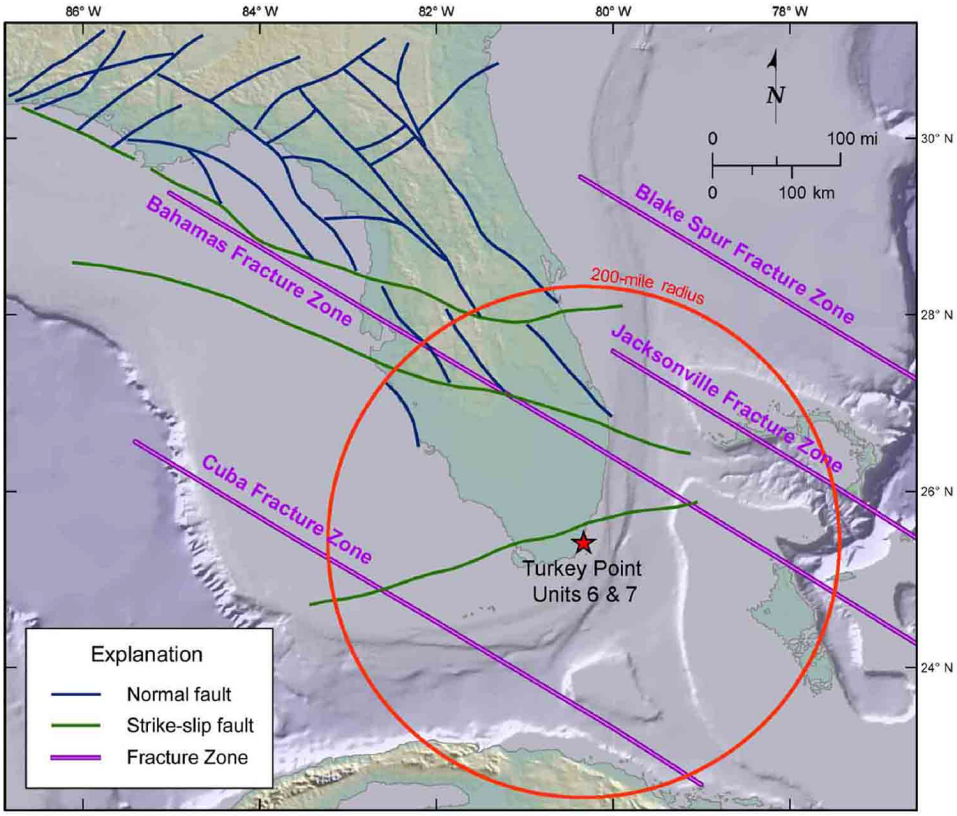
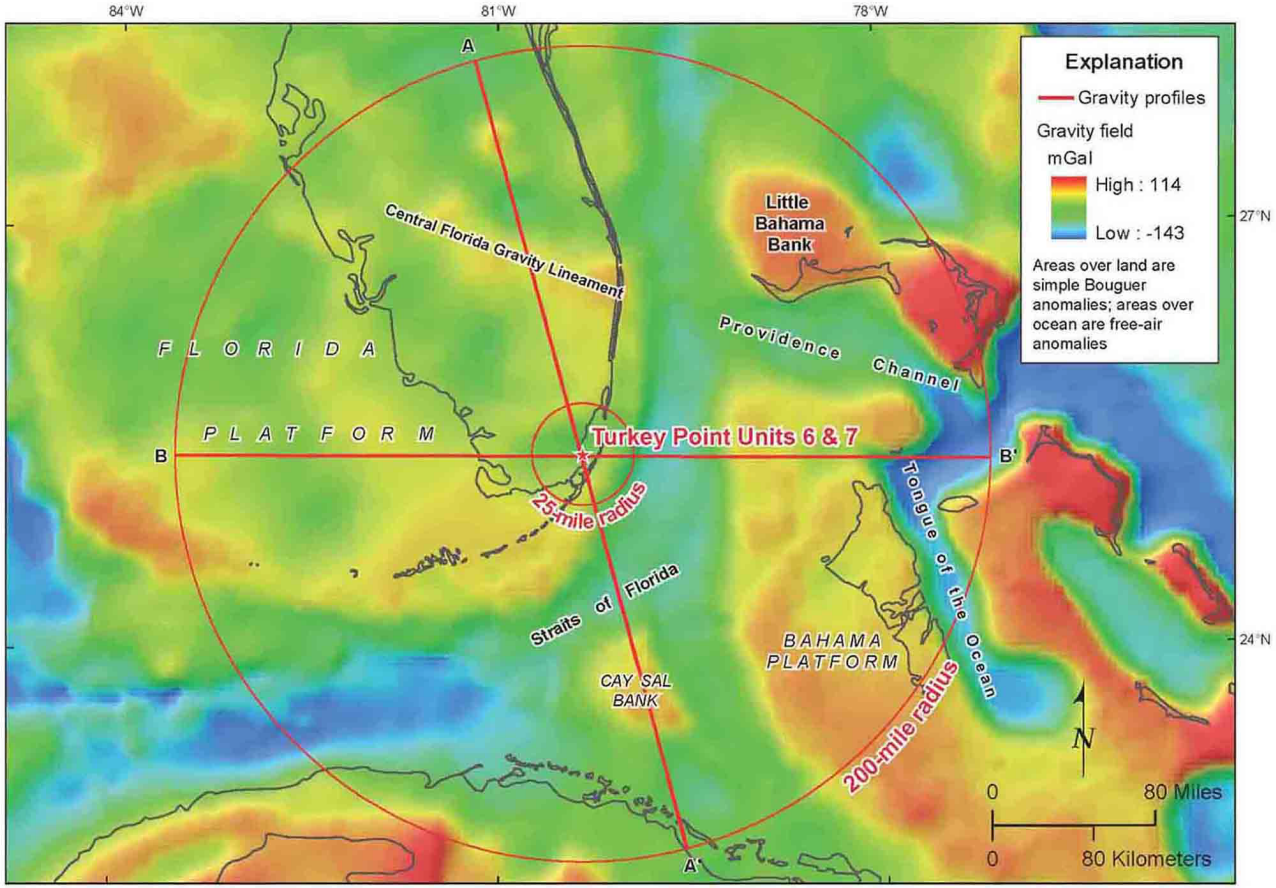


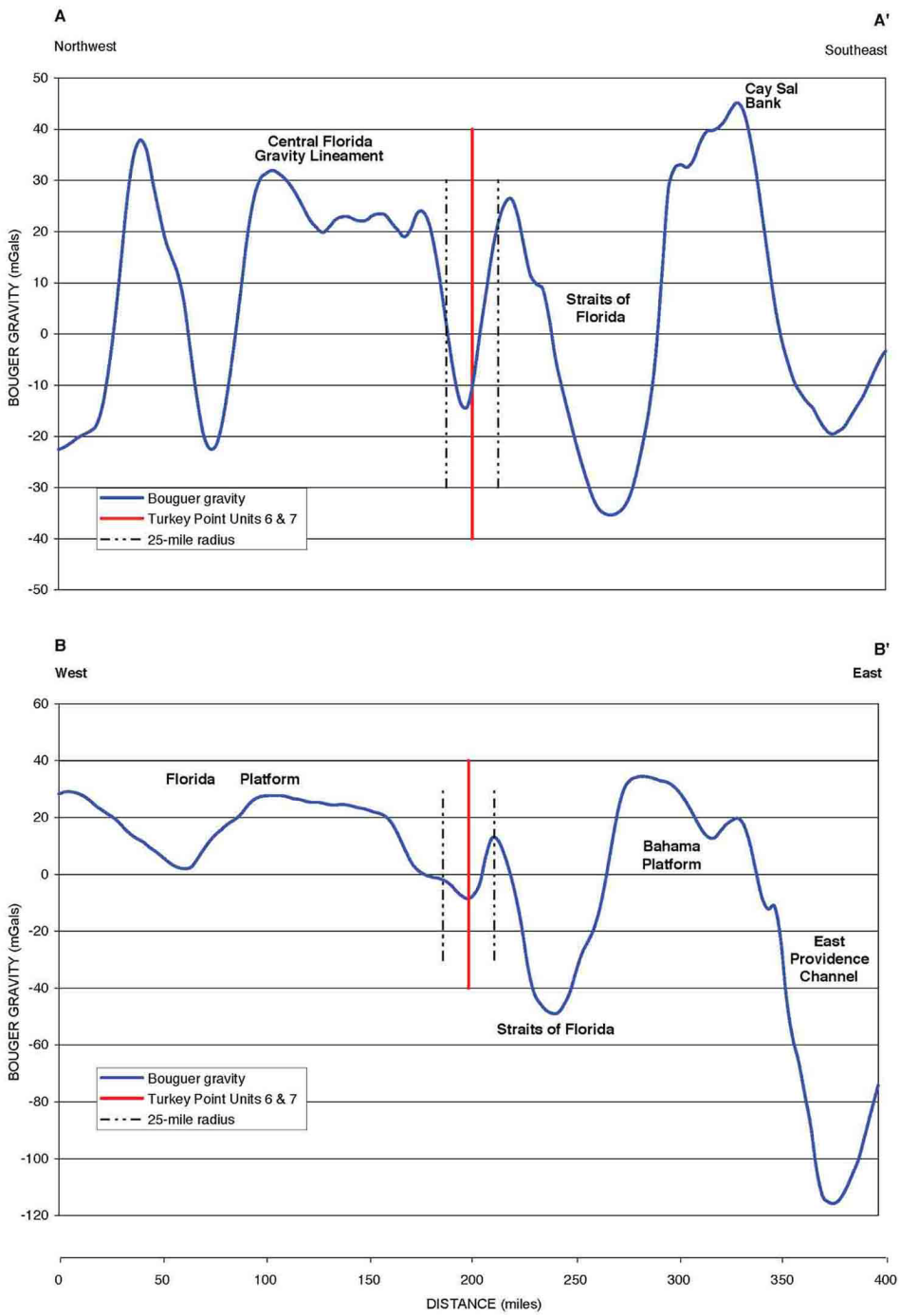
Modified from: References 212 and 458

Figure 2.5.1-253 Basement Faults of Florida Platform



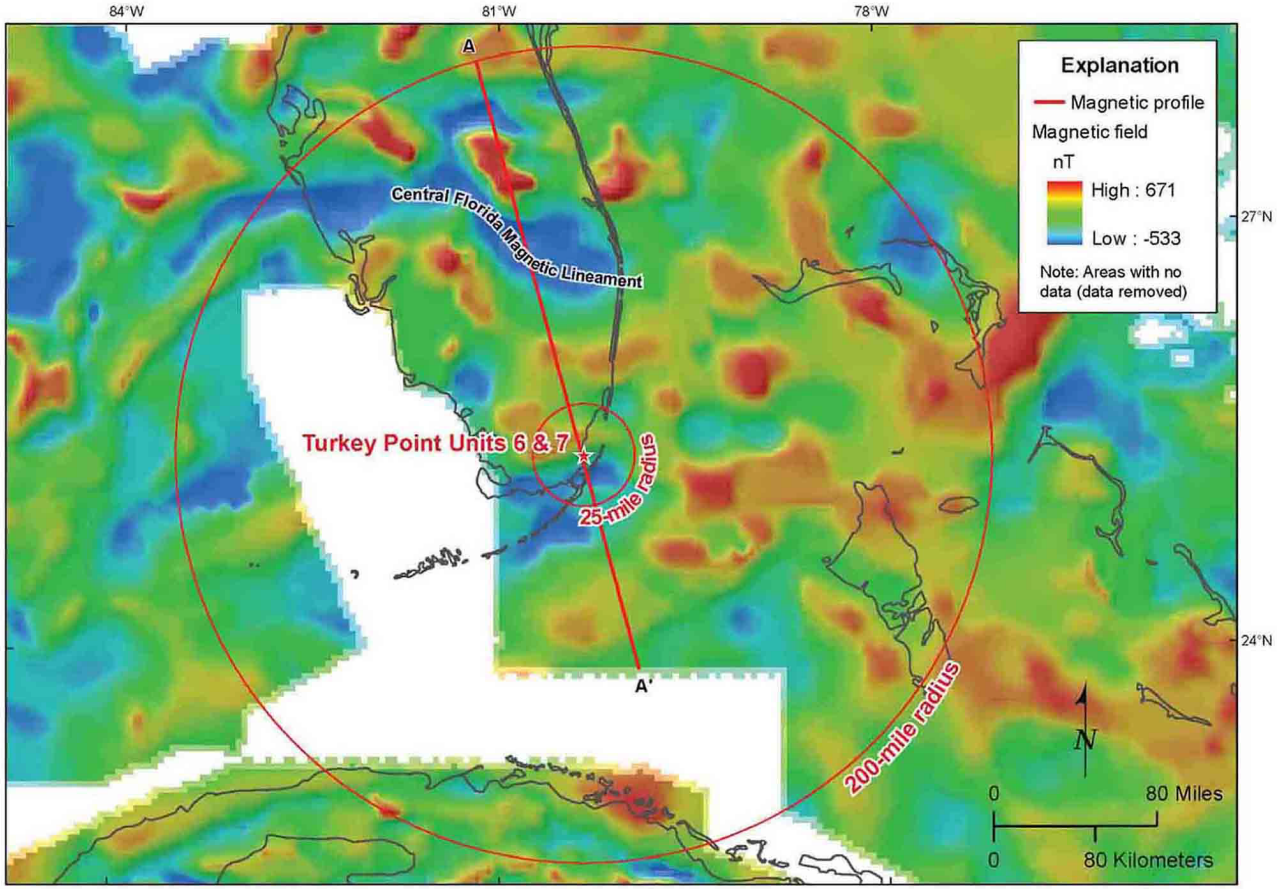
Note: Gravity includes Bouguer over land and free-air over water.
Source of Bouguer gravity information: References 452 and 453
Source of physiographic features: Reference 409

Figure 2.5.1-254 Gravity Field for the Site Region



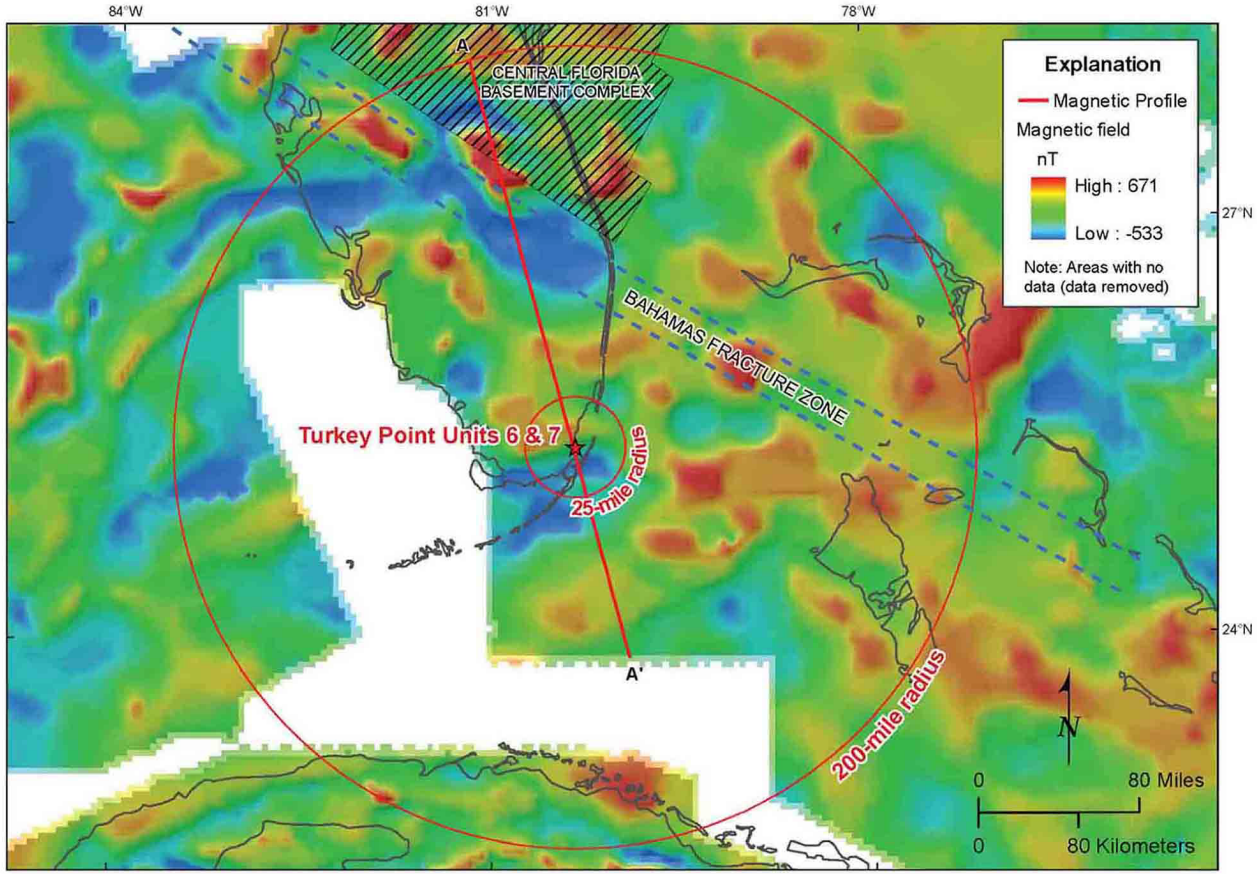
Notes:
- Gravity includes Bouguer over land and free-air over water
- Physiographic features adapted from Reference 307

Figure 2.5.1-255 Gravity Profile A–A' and B–B'



Source of basement complex and Bahama faults: Reference 212

Figure 2.5.1-256 Magnetic Field for the Site Region



Source of magnetic information: References 452 and 453
Source of basement complex and Bahama faults: Reference 212

Figure 2.5.1-257 Regional Magnetic Field Annotated with Locations of the Central Florida Basement Complex and Bahama Fracture Zone

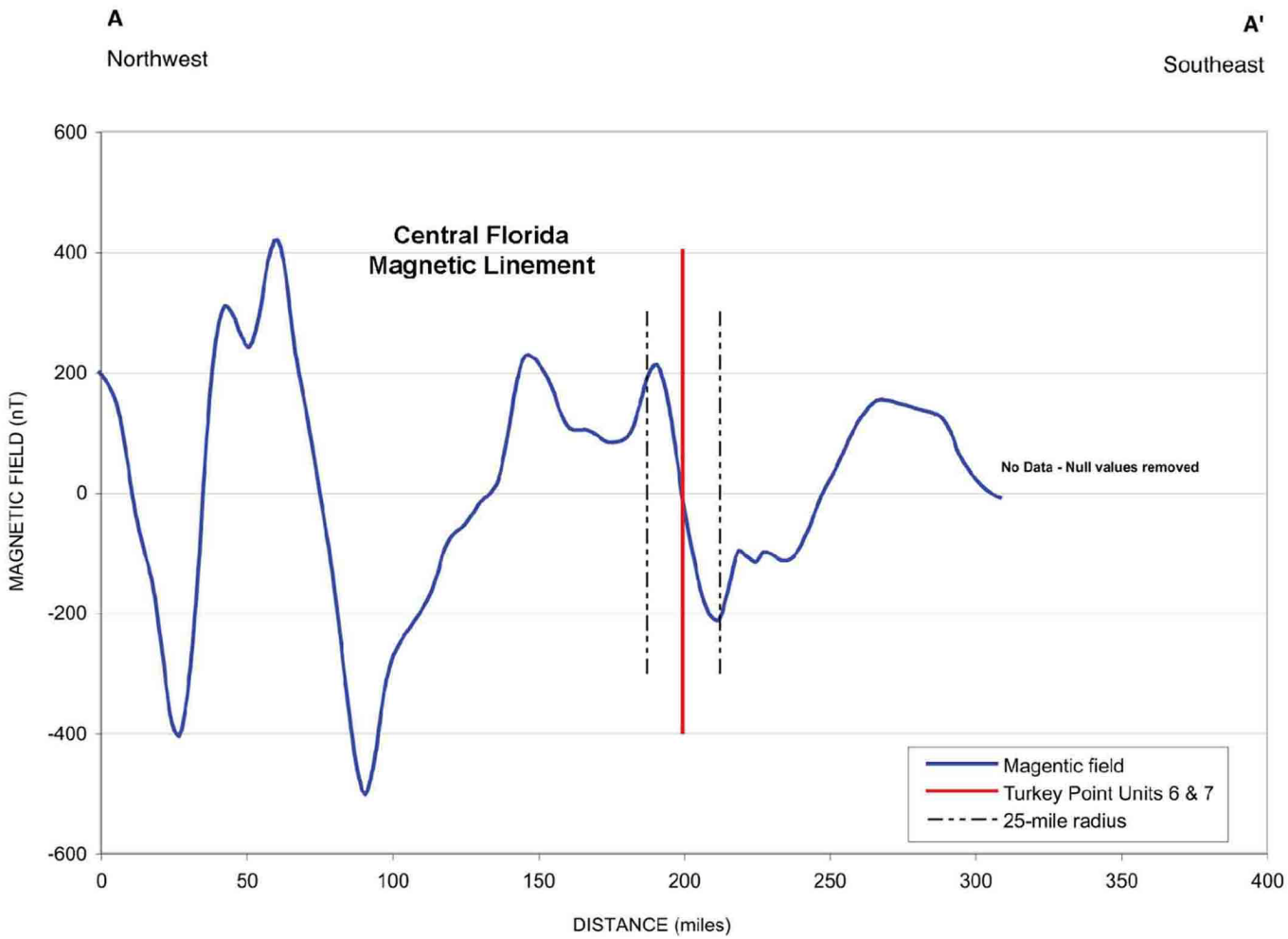
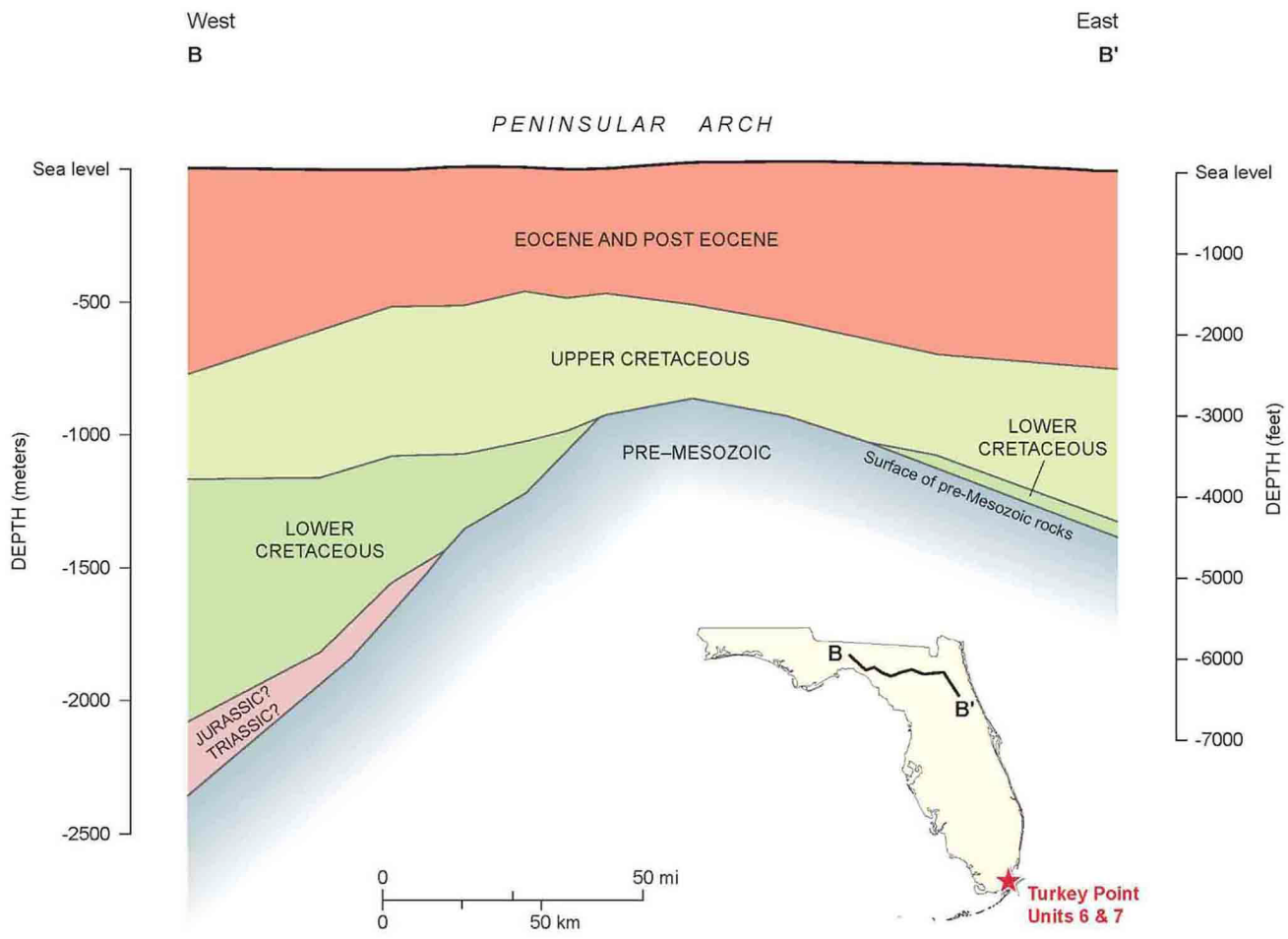
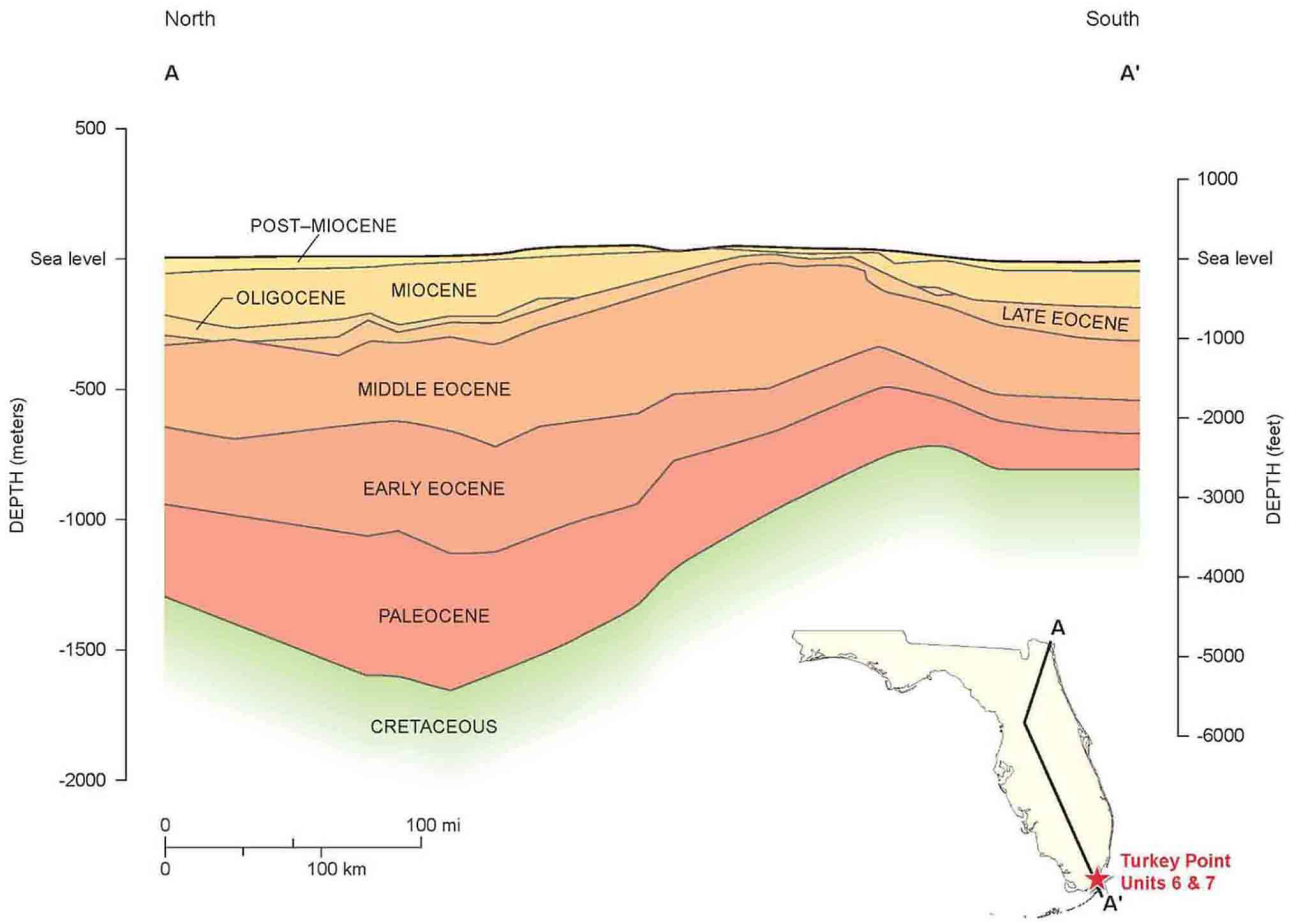


Figure 2.5.1-258 Magnetic Profile A–A'



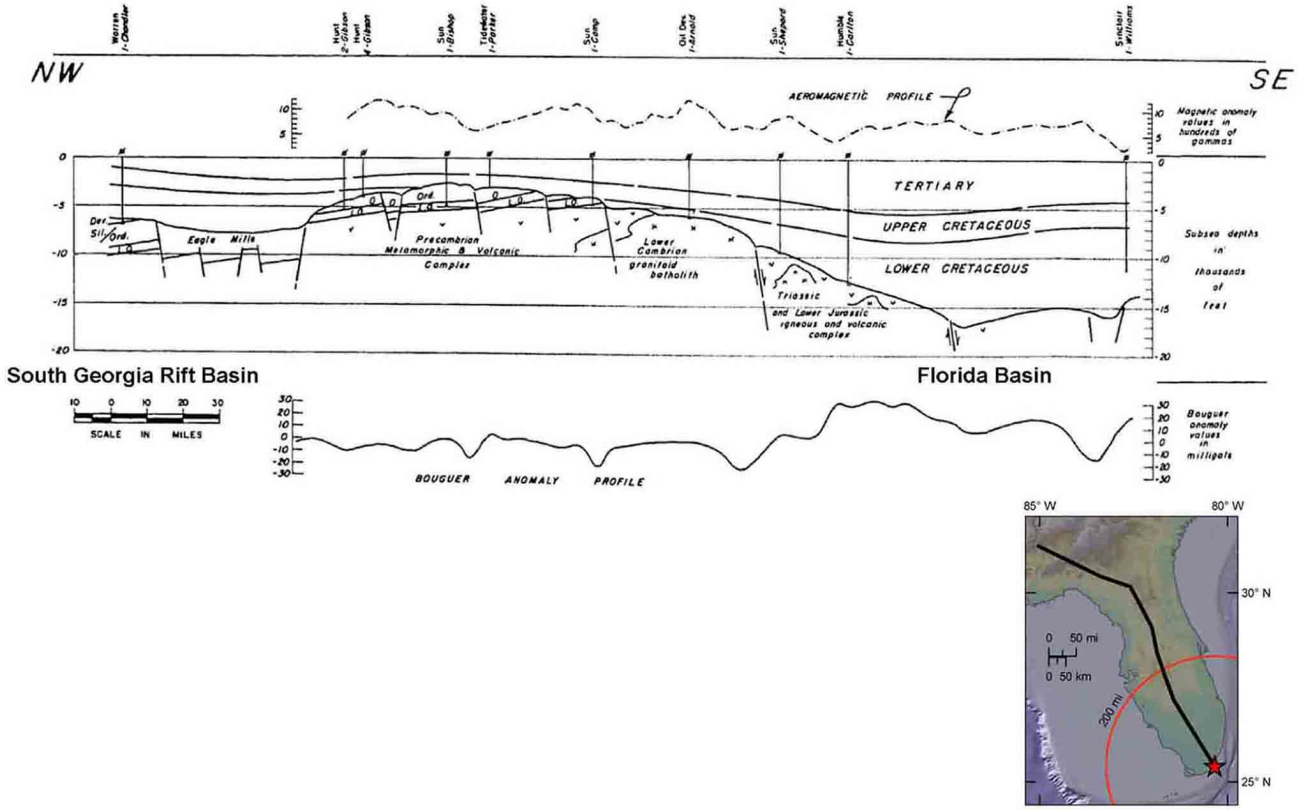
Source: Reference 388

Figure 2.5.1-259 Generalized West-East Cross Section across Northern Florida



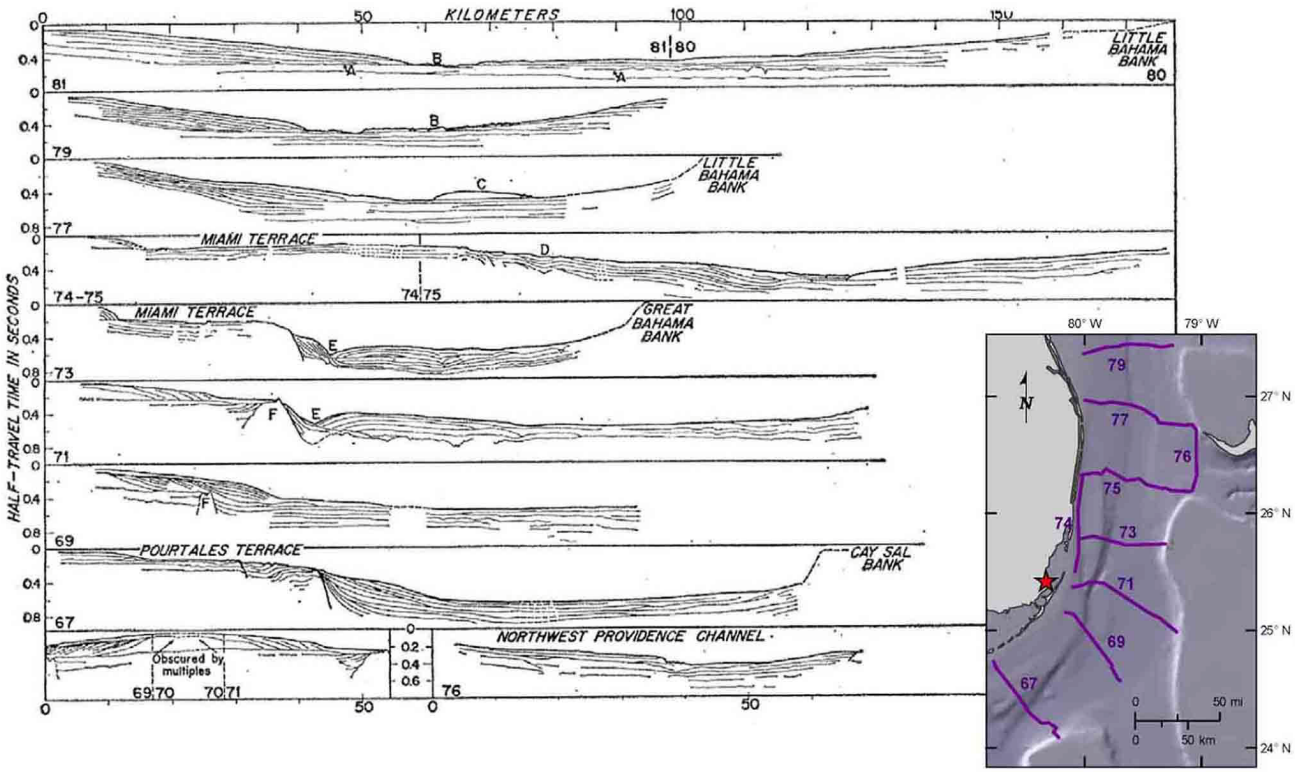
Source: Reference 388

Figure 2.5.1-260 Cretaceous and Younger Strata North-South Geologic Cross Section of Florida



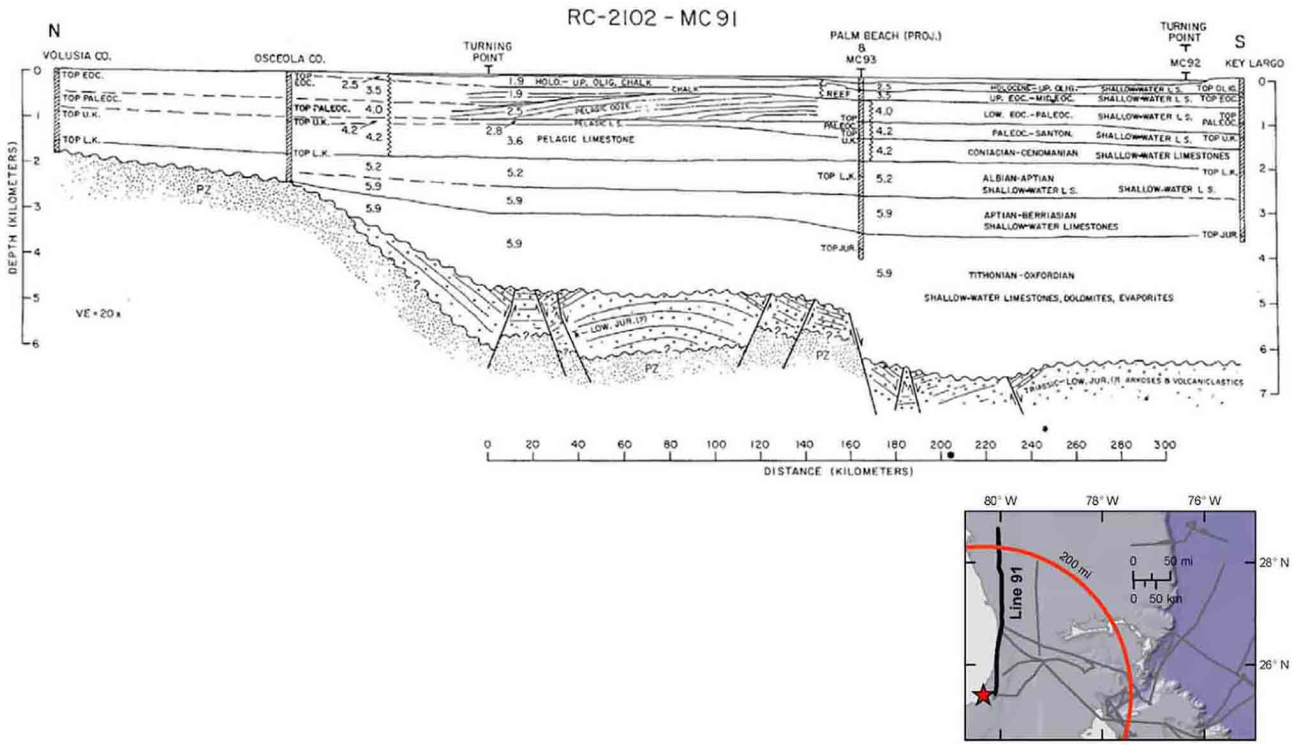
Modified from: Reference 458

Figure 2.5.1-261 Cross Section of Florida Platform



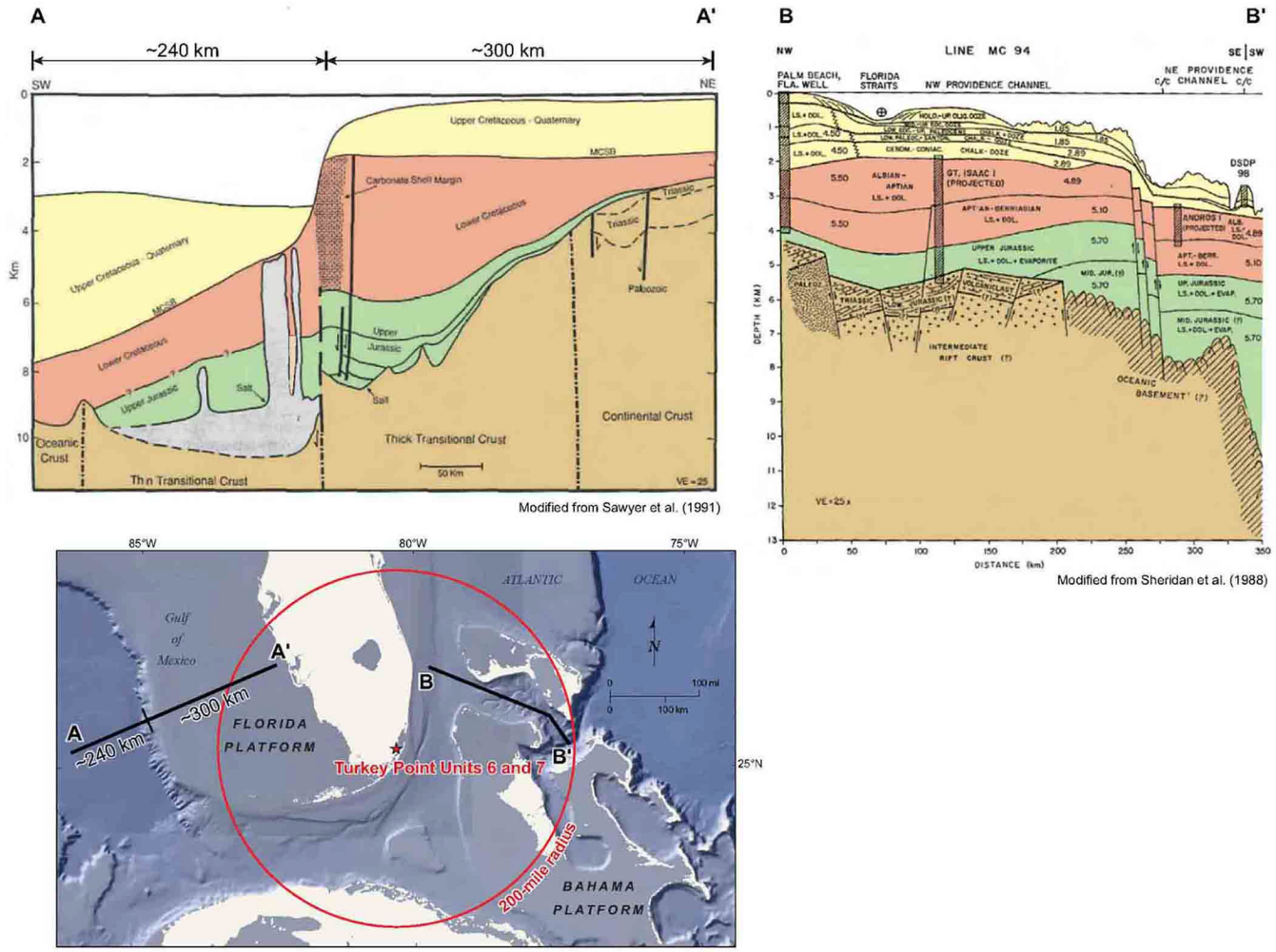
Modified from: Reference 790

Figure 2.5.1-262 Seismic Line Interpretations across the Straits of Florida



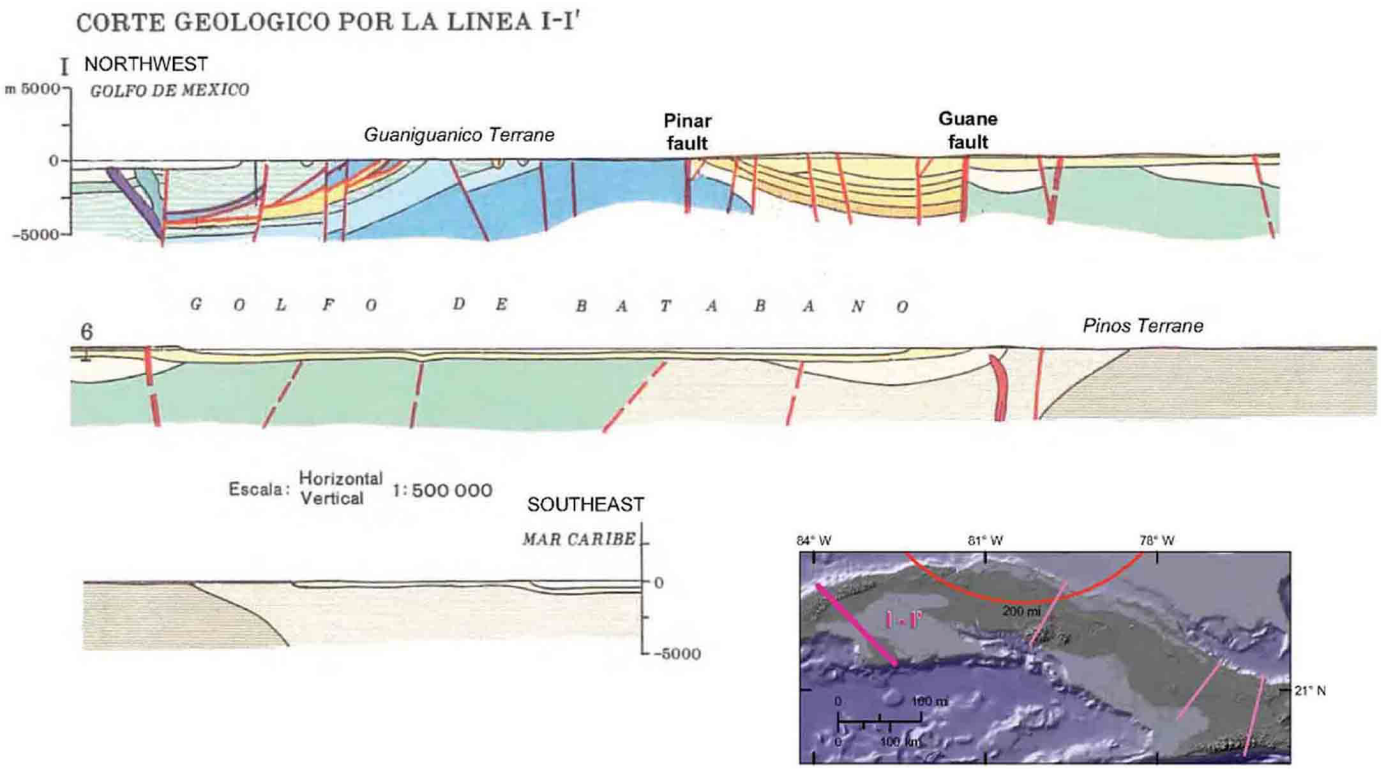
Modified from: Reference 307

Figure 2.5.1-263 Interpretation of Seismic Line and Well Correlation, Straits of Florida



Modified from: References 307 and 410

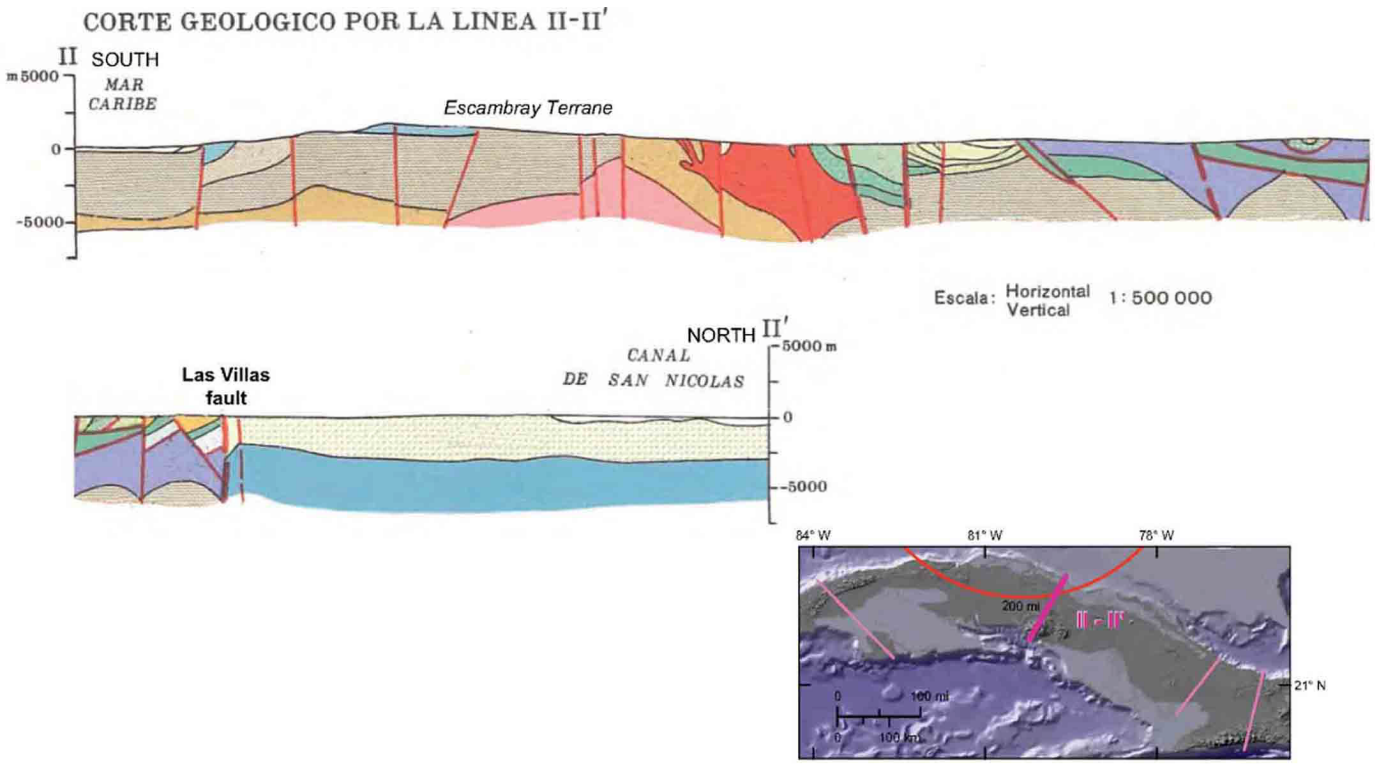
Figure 2.5.1-264 Generalized Cross Sections, from Gulf of Mexico to Bahama Platform



Modified from: Reference 848

Geologic Cross Section Line I-I'

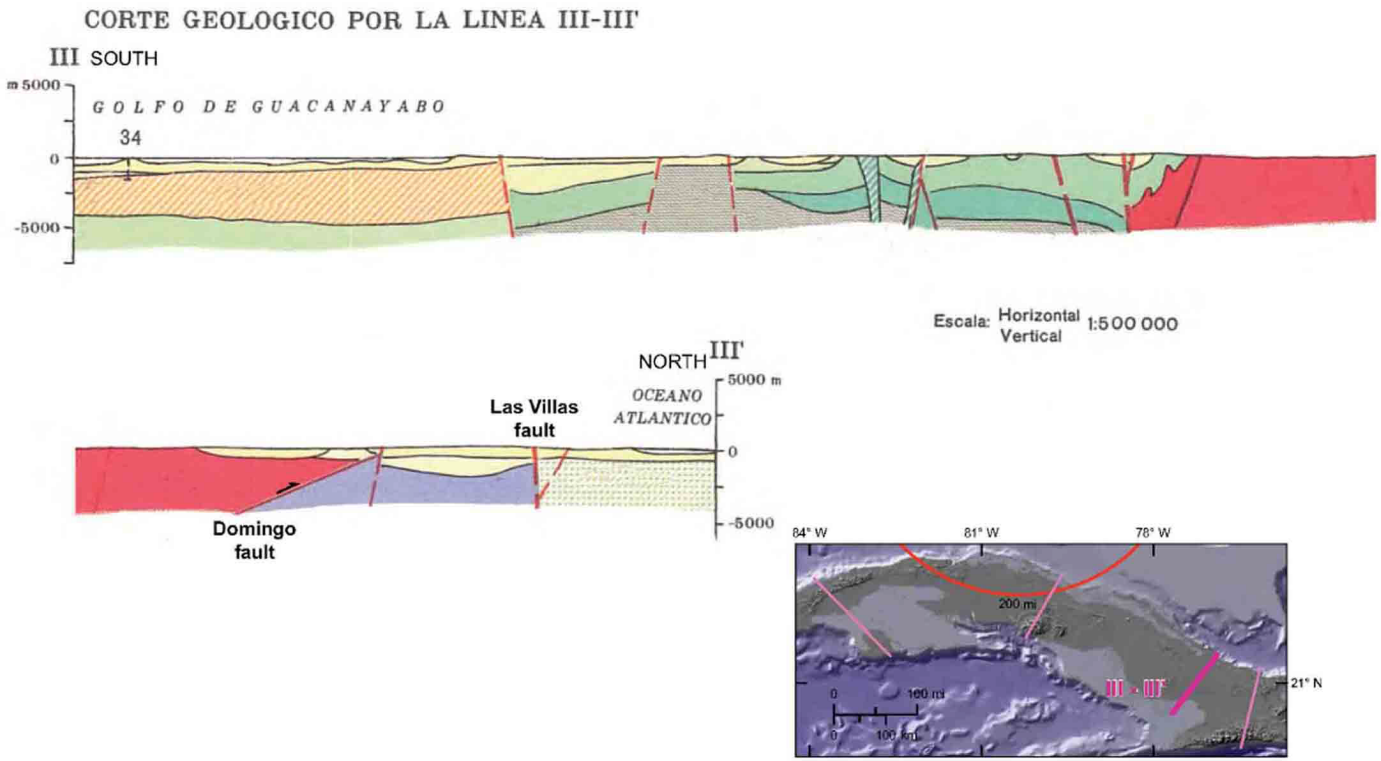
Figure 2.5.1-265 Geologic Cross Section of Cuba (Sheet 1 of 5)



Modified from: Reference 848

Geologic Cross Section Line II-II'

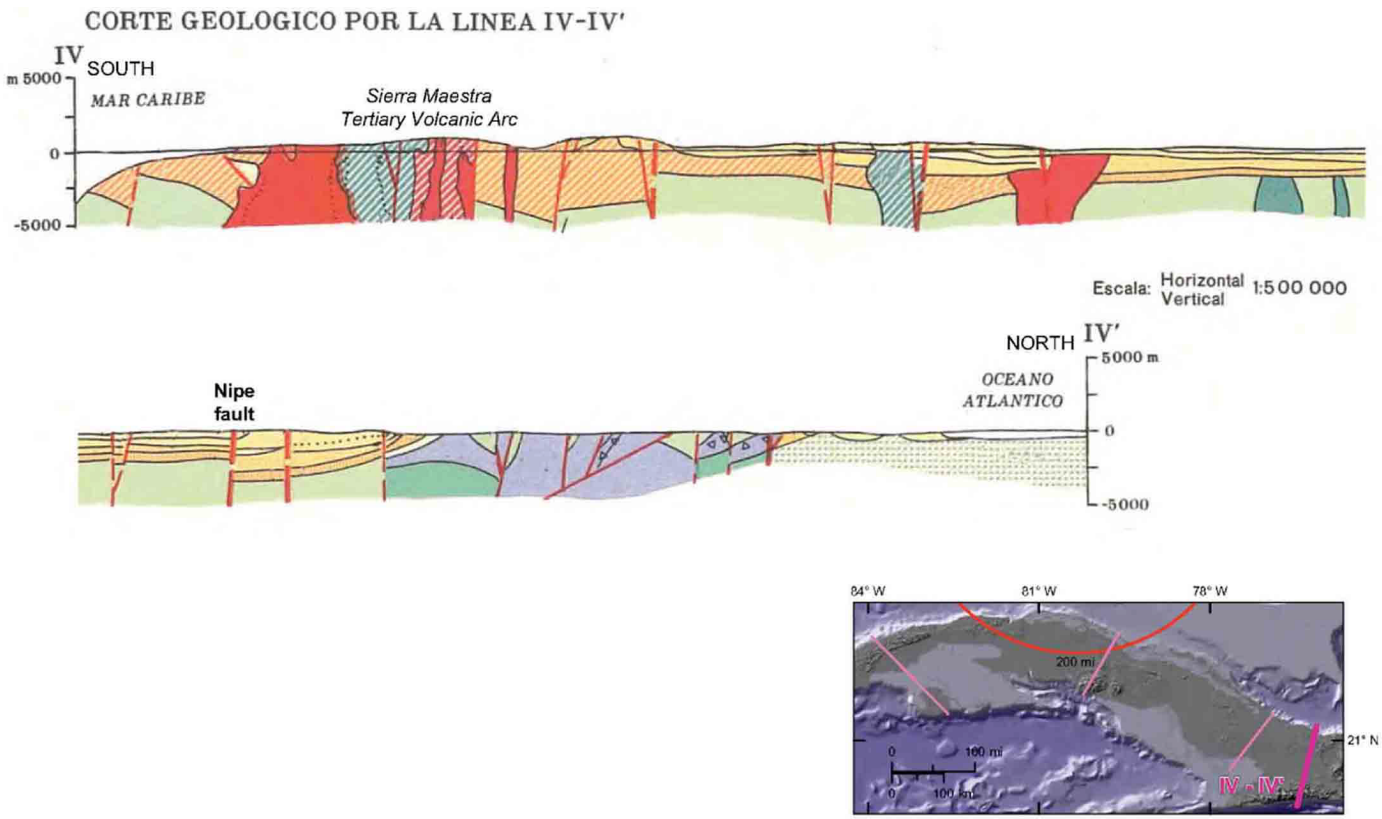
Figure 2.5.1-265 Geologic Cross Section of Cuba (Sheet 2 of 5)



Modified from: Reference 848

Geologic Cross Section Line III-III'

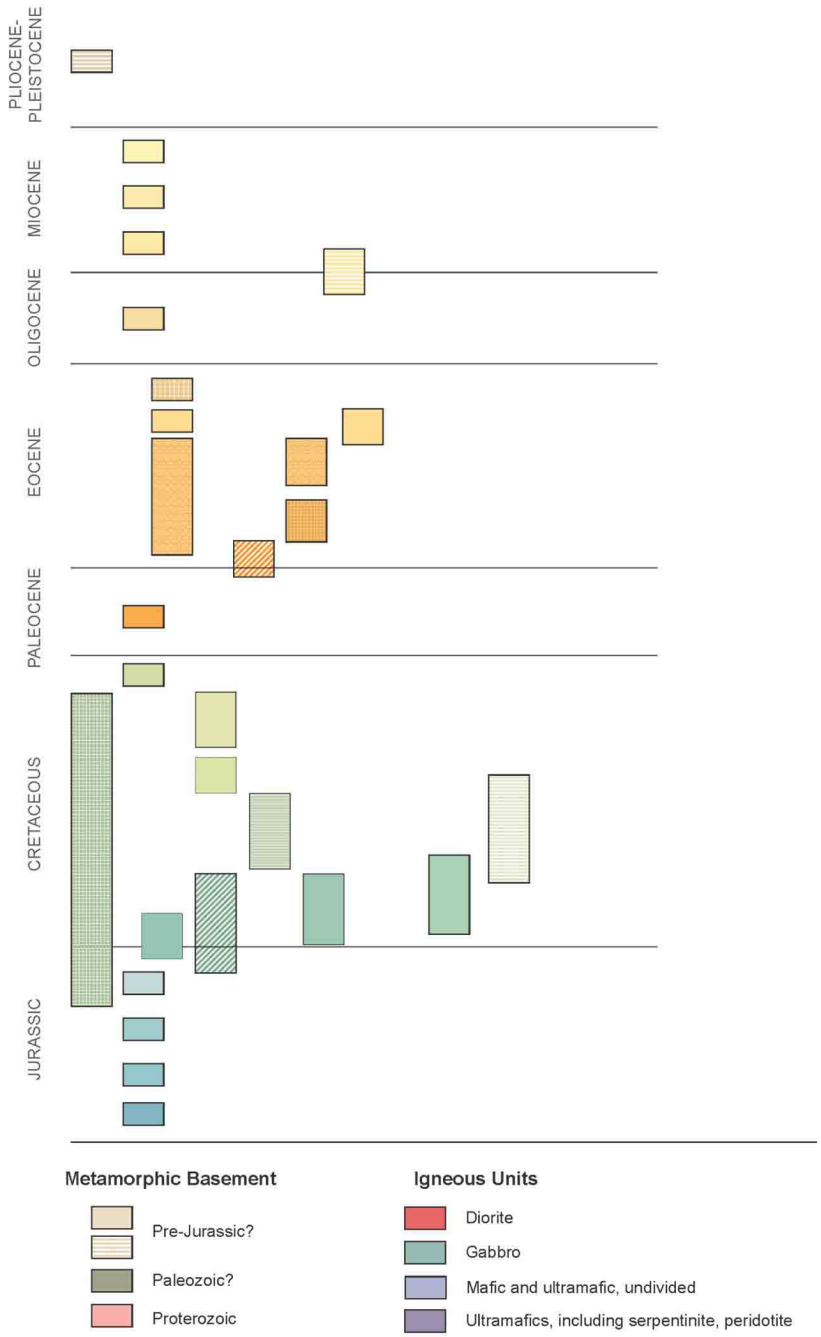
Figure 2.5.1-265 Geologic Cross Section of Cuba (Sheet 3 of 5)



Modified from: Reference 848

Geologic Cross Section Line IV-IV'

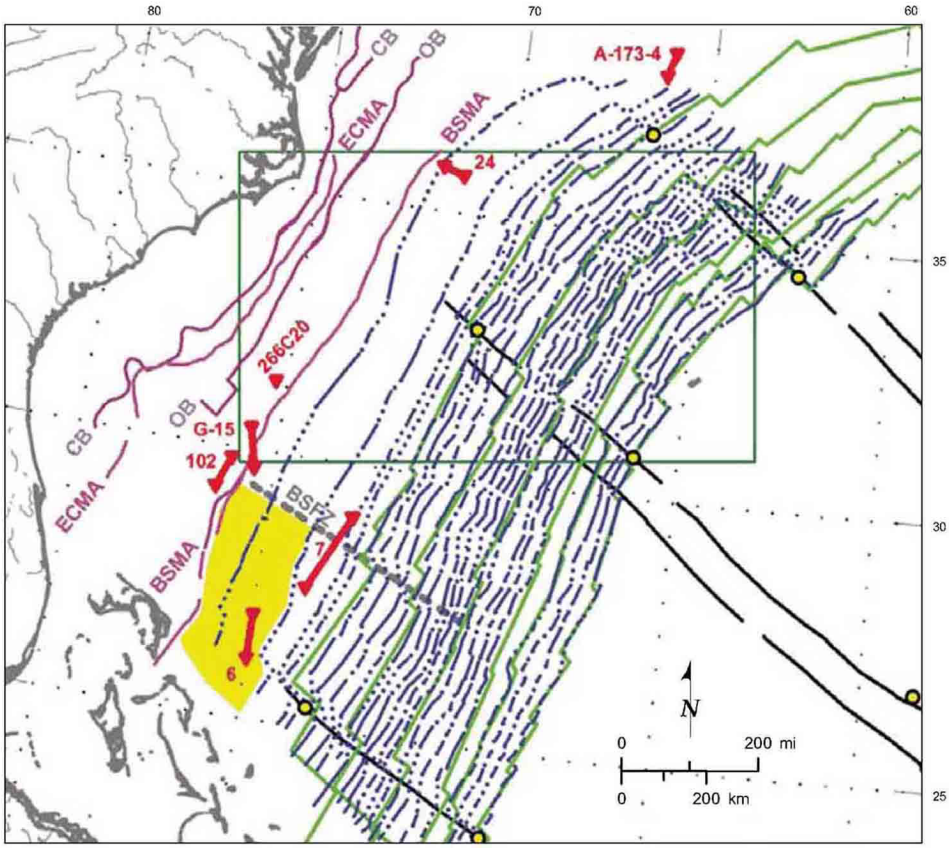
Figure 2.5.1-265 Geologic Cross Section of Cuba (Sheet 4 of 5)



Modified from: Reference 848

Simplified Legend for Cuban Cross Sections

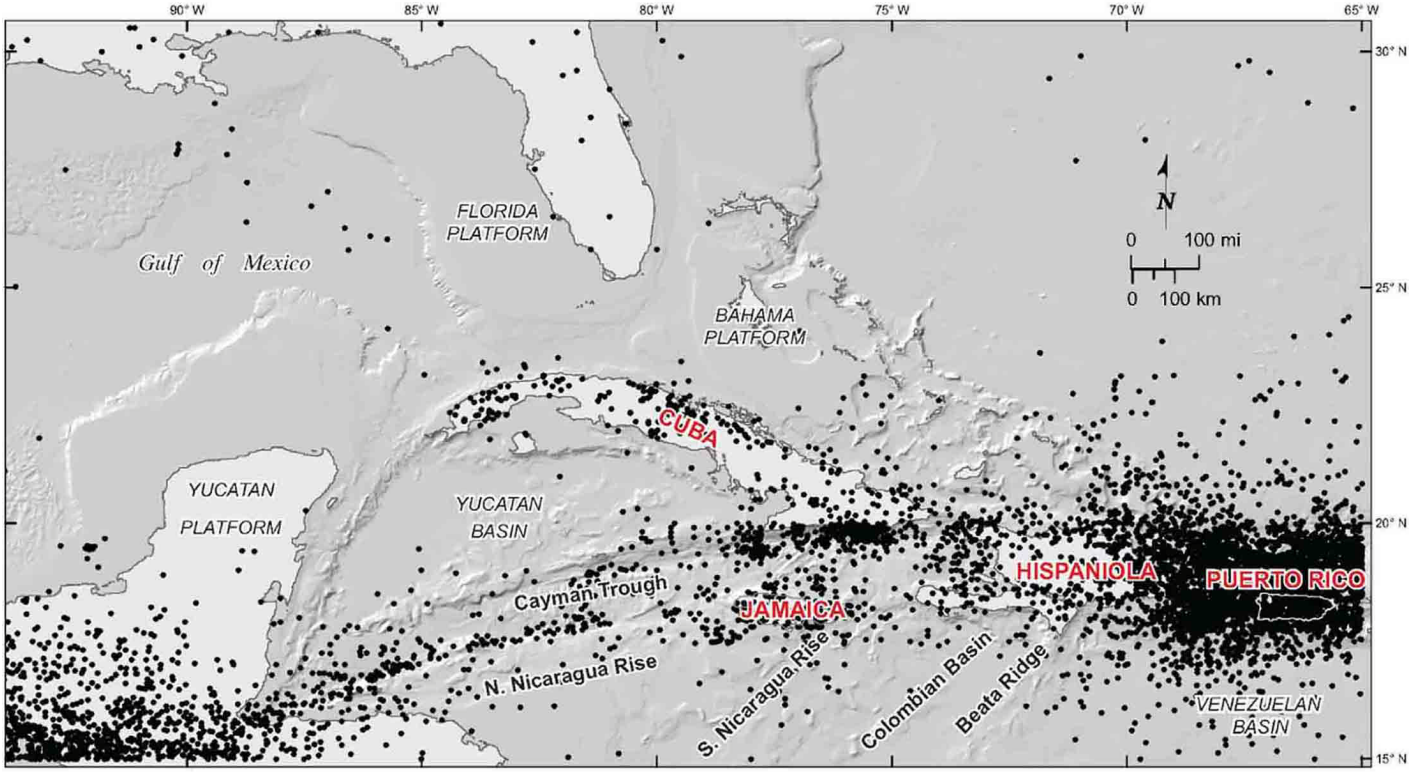
Figure 2.5.1-265 Geologic Cross Section of Cuba (Sheet 5 of 5)



Notes: Fracture zones (thick black) and geomagnetic isochrons—North America. Chrons mapped by Reference 466 are blue; global Chrons are green. Control points used for plate reconstructions are located at the intersections of fracture zones, and isochrons are yellow circles. Inverted red triangles and heavy red lines are locations of refraction data that indicate oceanic crust. The East Coast Magnetic Anomaly (ECMA) and the Blake Spur Magnetic Anomaly (BSMA) are subparallel to the coast (magenta). Dark-purple lines are the mappable limits of continental (CB) and oceanic crust (OB). The Blake Spur Fracture Zone (BSFZ) is indicated by heavy, dashed, light-gray line. Yellow shaded area corresponds to continental extension of the Blake Plateau. The magnetic anomaly correlation example is outlined by the green box.

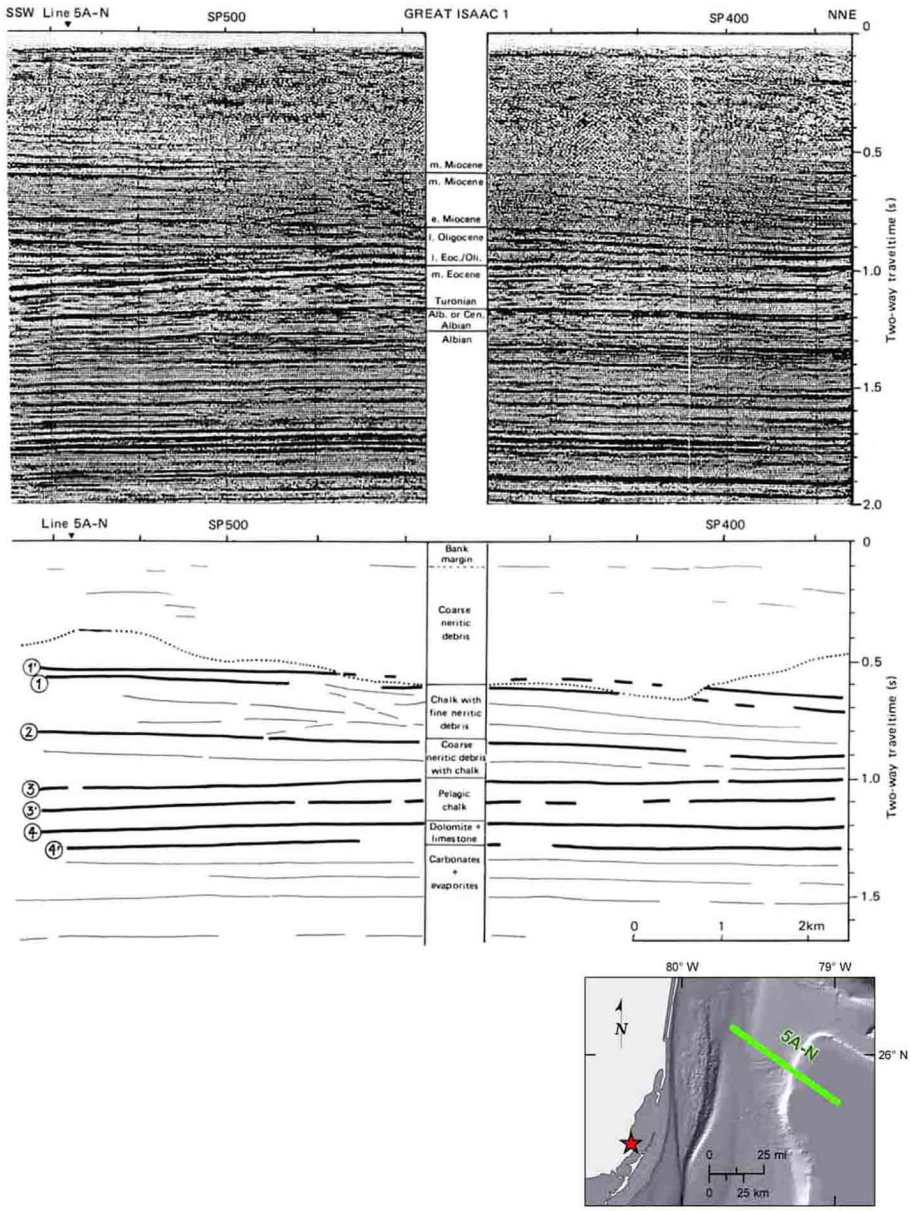
Modified from: Reference 466

Figure 2.5.1-266 Magnetic Reversal Map of Oceanic Crust and Fracture Zones East of Bahama Platform



Note: Earthquake epicenters from Phase 2 catalog (Subsection 2.5.2.1.3), $M_W \geq 3.0$.

Figure 2.5.1-267 Earthquakes in the Caribbean Region

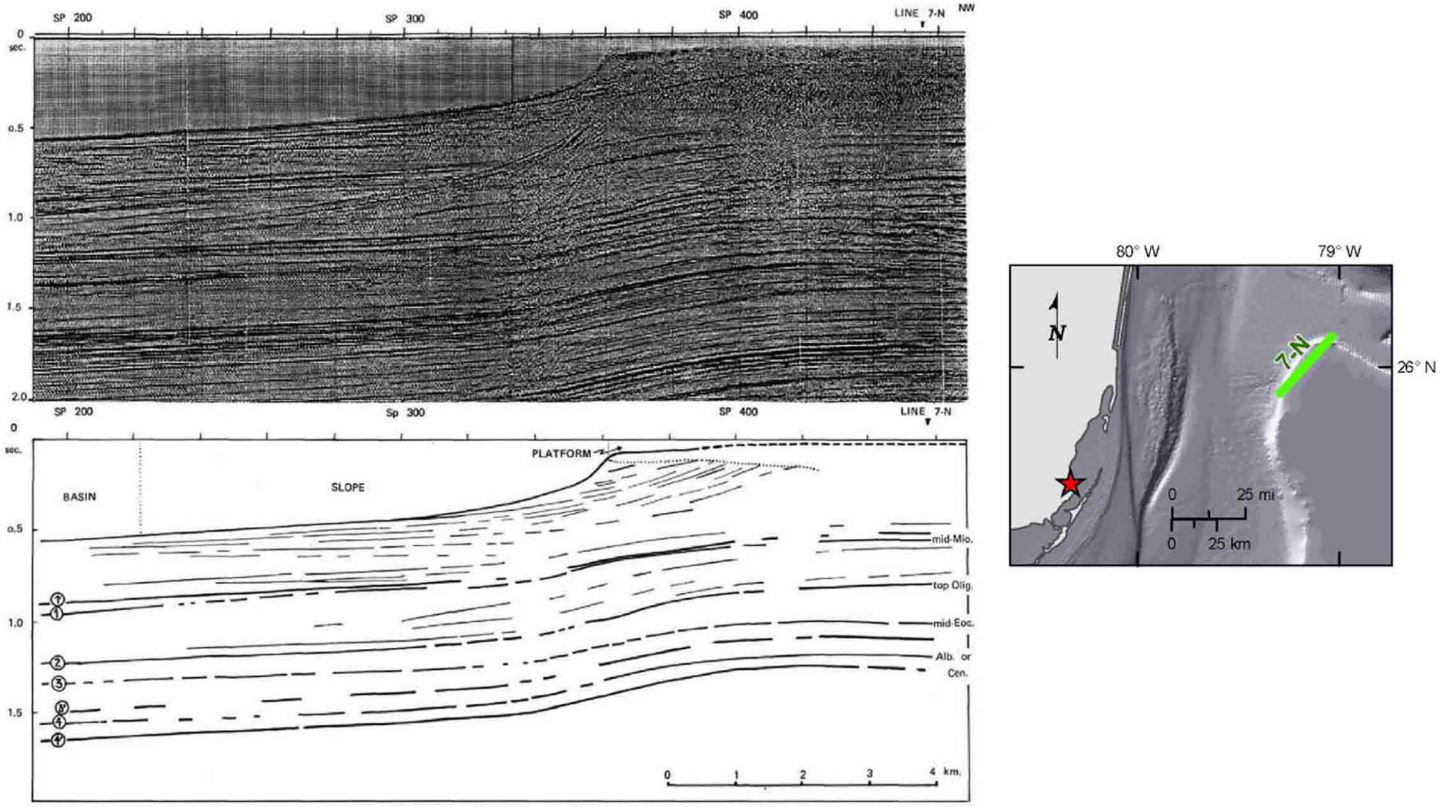


Notes:

- Circled numbers refer to reflectors traced to line 7-N (Figure 2.5.1-269).
- Dotted line delimits diachronous boundary of incoherent slope facies.
- Line cuts across lobe of Great Bahama Bank so that well represents innermost position on bank with thickest development of proximal slope facies.
- South-southwest and north-northwest ends of line approach present bank margin where only upper section is developed as proximal slope facies.

Modified from: Reference 432

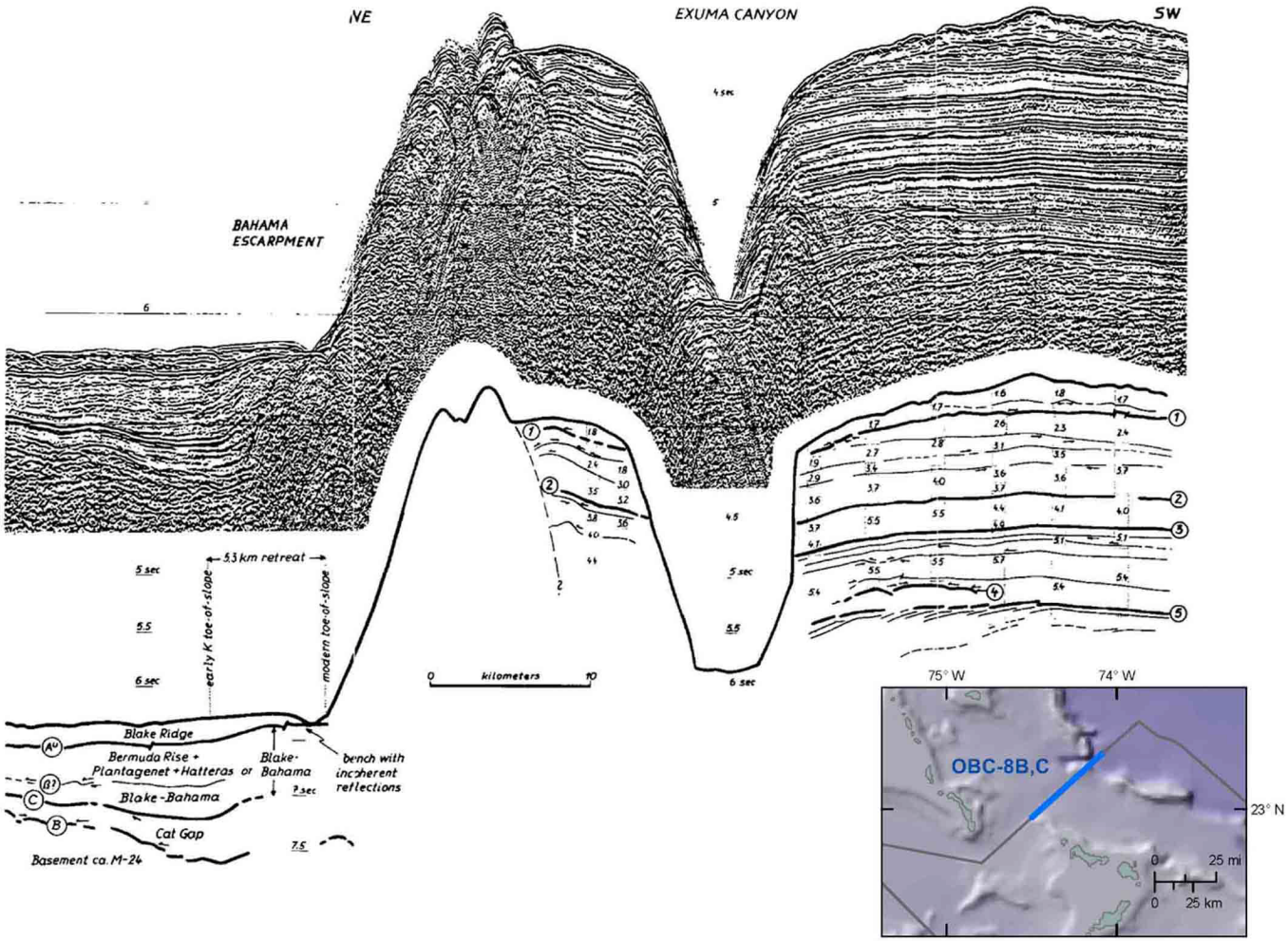
Figure 2.5.1-268 Seismic Line and Interpretation, with Correlation to Great Isaac 1 Well, Bahama Platform



Notes:
- Circled numbers indicate reflectors identified on line 5A-N (Figure 2.5.1-268).
- Basin, slope, and platform environments are separated according to present-day topography.
- Boundary between basin and slope is drawn at a slope tangent of 0.025 (1.4°) and marked by a dotted line.

Modified from: Reference 432

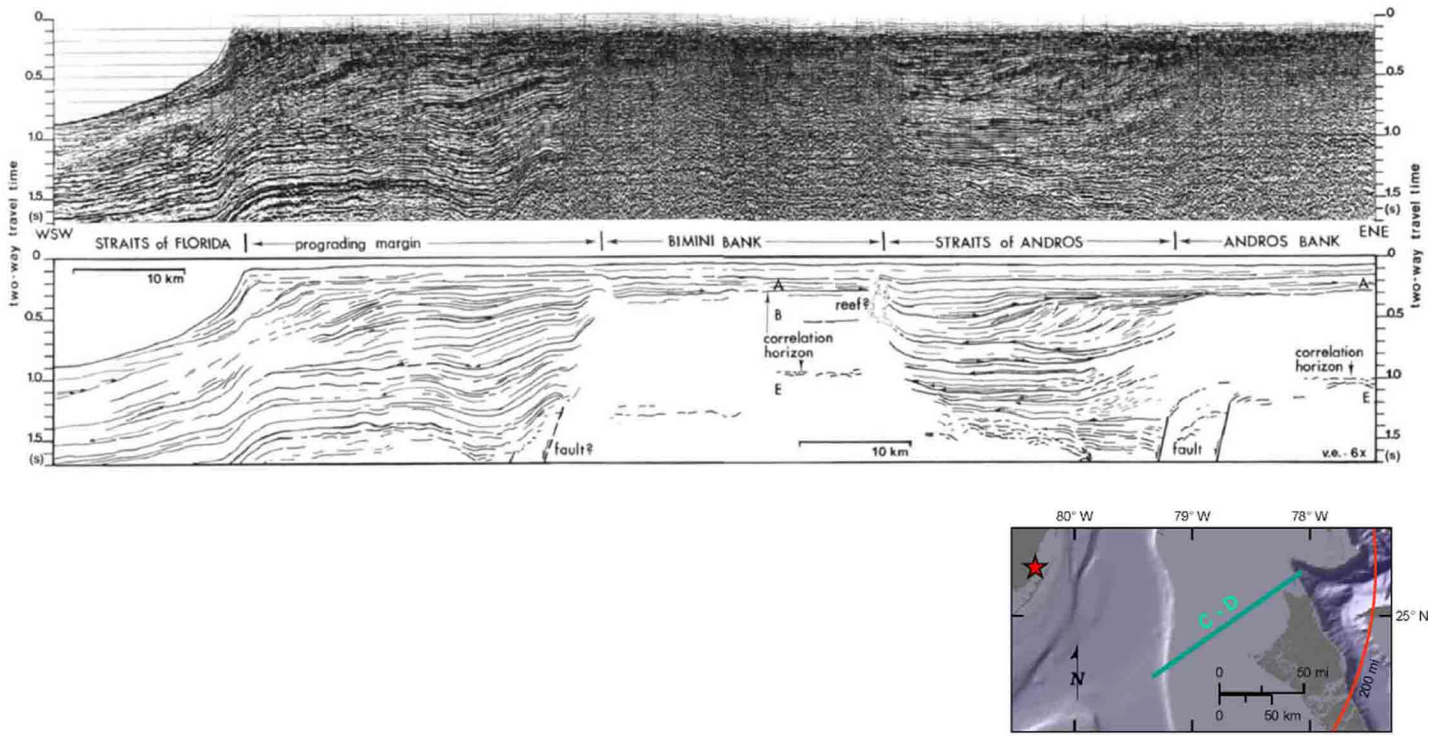
Figure 2.5.1-269 Seismic Line of Northwest Great Bahama Bank



Notes:
Seismic line OBC-8B, C, 48-trace, 24-fold; four air guns of 6000 cubic inches total volume, fired at 500 psi in 25-second intervals; data not deconvolved or migrated.
Interpretation of line OBC-8B, C Identification of reflectors seaward of escarpment is based on correlation with DSDP Site 99.

Modified from: Reference 687

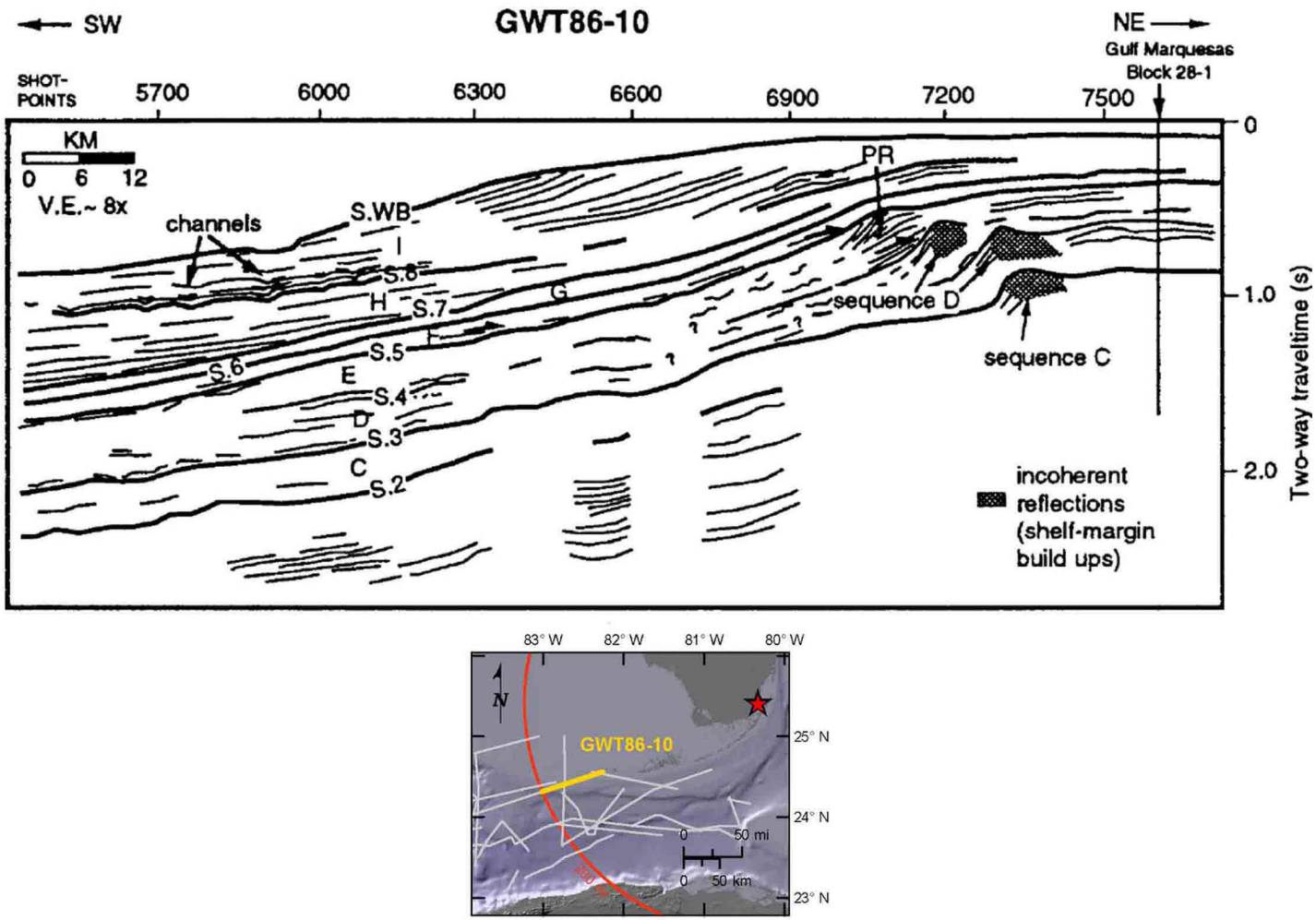
Figure 2.5.1-270 Seismic Line across Exuma Canyon and Bahama Platform



Note: Line showing complex filled Straits of Andros separating Andros bank from Bimini bank and westward-prograding margin of Bimini bank. Note that basal, high-amplitude reflector E is on same elevation within both banks but is displaced at western side of Andros bank and dips into Straits of Andros, where it underlies first reflectors of filling deposits. Compare structural similarities of western margin of Bimini and Andros banks and evolution of prograding sequences over slope deposits.

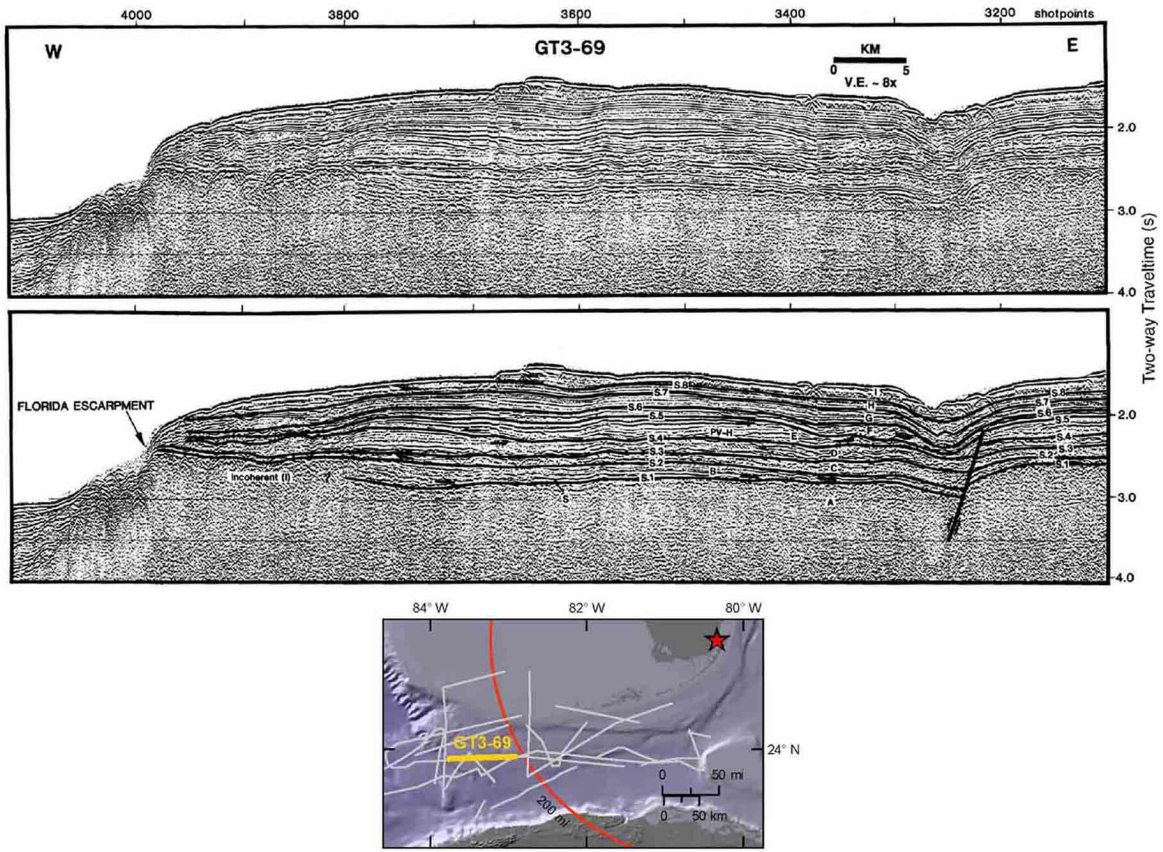
Modified from: Reference 475

Figure 2.5.1-271 Seismic Line and Interpretation across Bahama Plateau



Modified from: Reference 221

Figure 2.5.1-272 Seismic Line Interpretation of the Western Straits of Florida



Note: Truncation of lower Paleocene–lower Eocene (?) sediments by S.4 may be related to erosion beneath a proto–Florida Current, which appears to have been concentrated over the central part of the southern Straits of Florida. Offset of S.5 and older horizons suggests a down-to-the-west normal fault at shot point 3210. At similar water depths (i.e., shot points 3400 and 3150), S.1 is at a deeper two-way travel time on the downthrown side of an inferred fault than on the upthrown side, suggesting this feature is not merely a velocity anomaly beneath the submarine canyon. Truncation by S.5 on the western flank of the submarine canyon may indicate this feature was active by the late middle Eocene.

Modified from: Reference 221

Figure 2.5.1-273 Seismic Line and Interpretation across Florida Platform

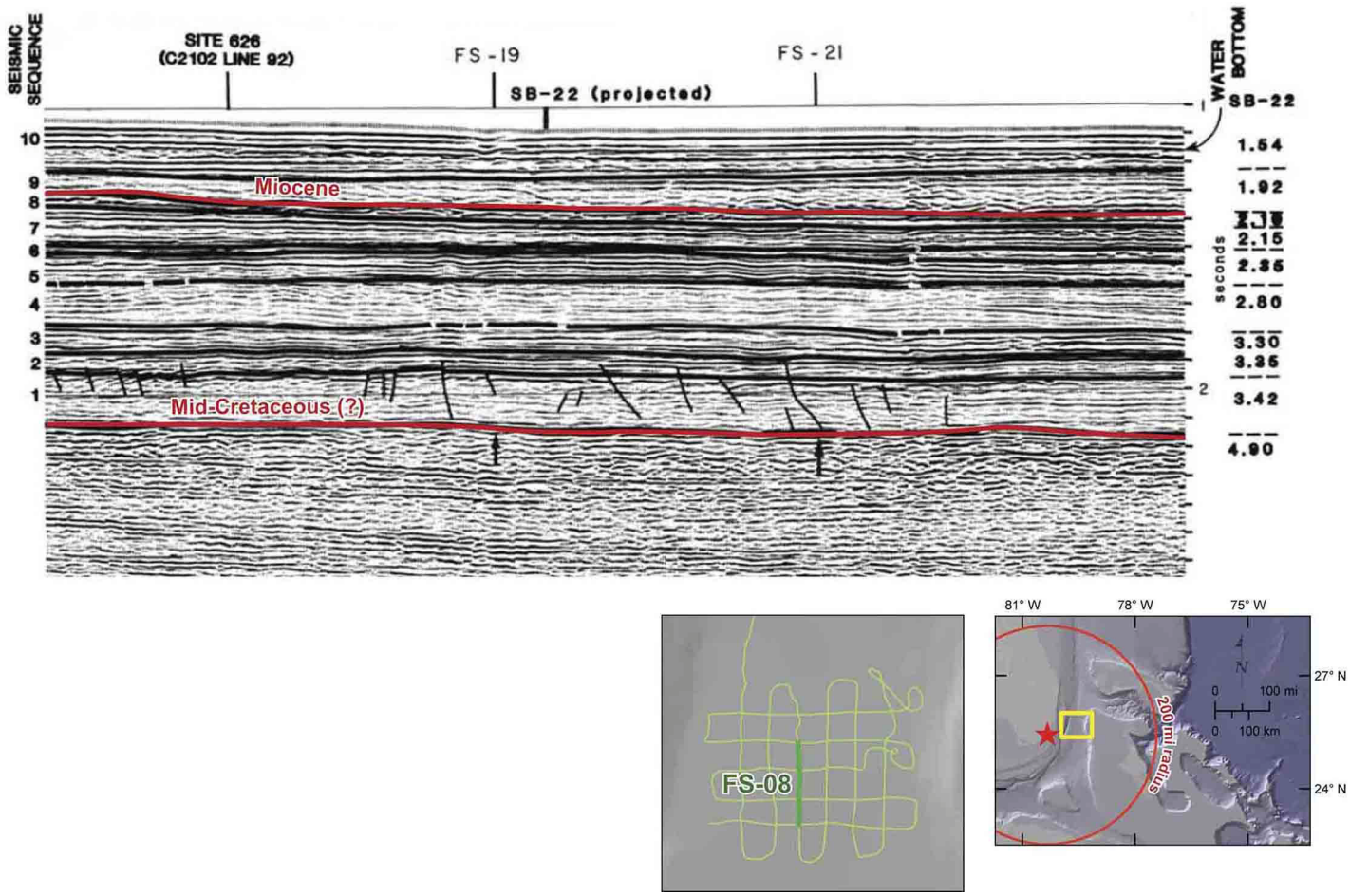


Figure 2.5.1-274 Interpreted Versions of the Southern Half of Profile FS-08 in the Straits of Florida

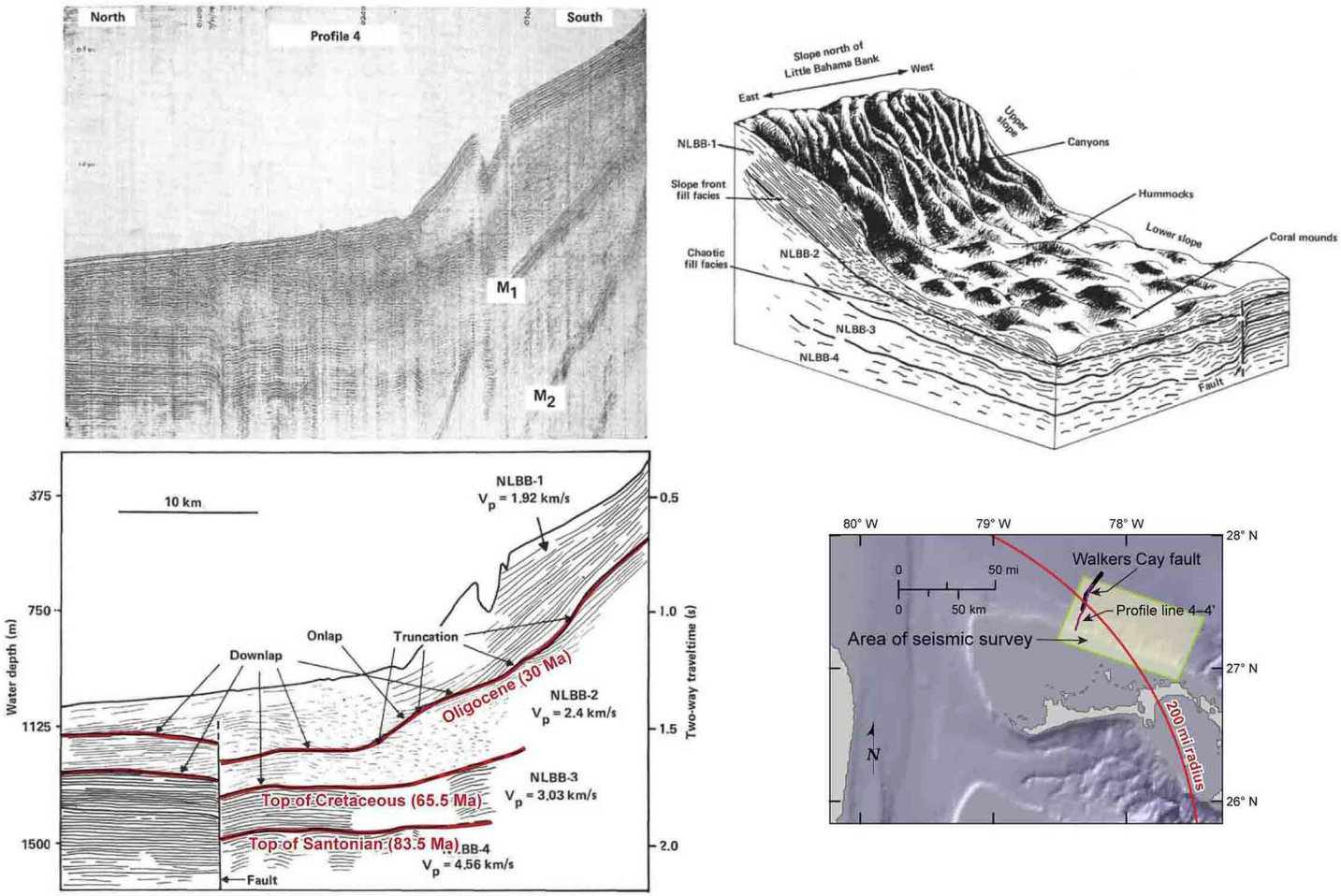


Figure 2.5.1-275 Seismic Line and Interpretation across the Walkers Cay Fault

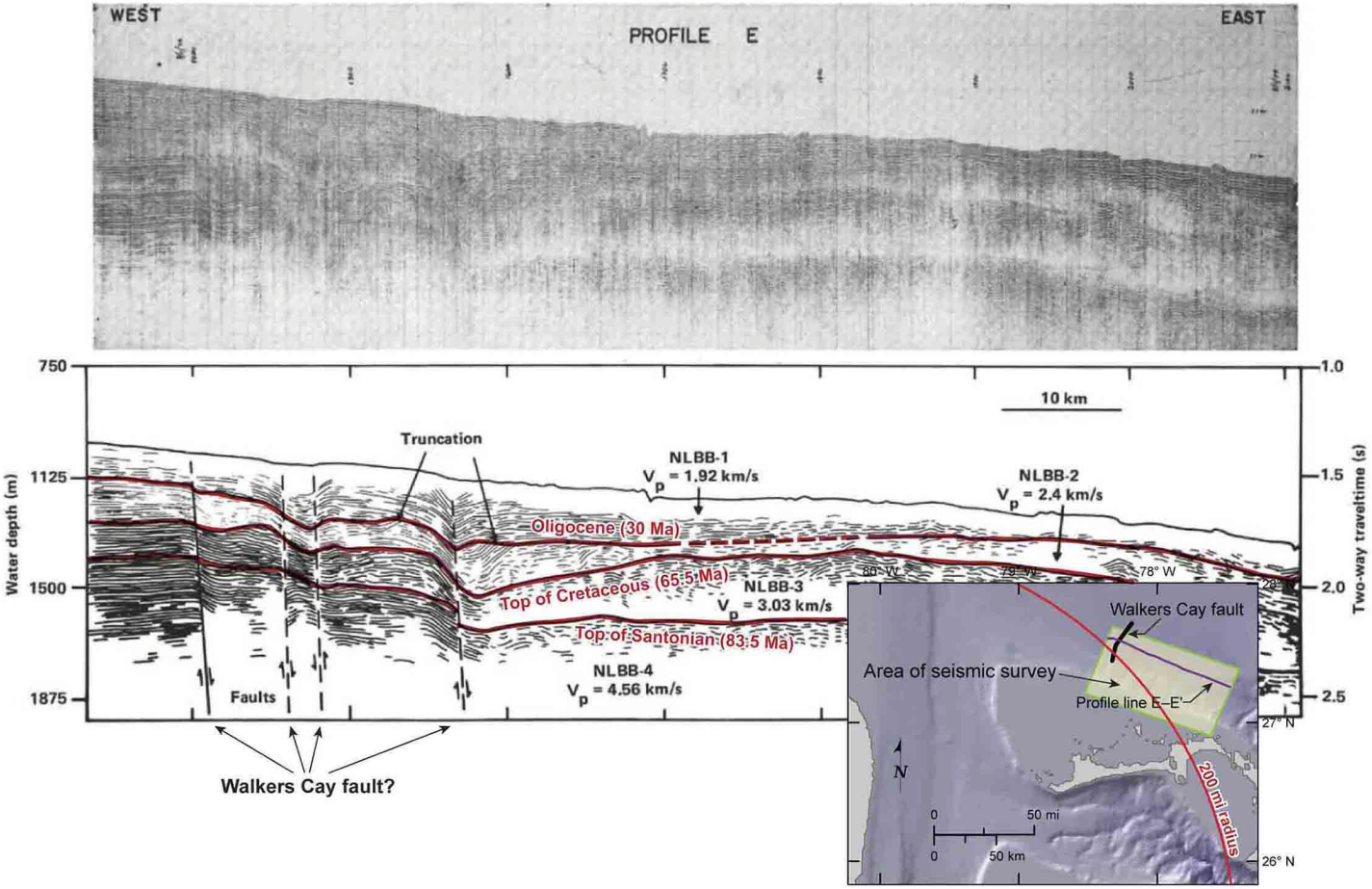


Figure 2.5.1-276 Seismic Line and Interpretation across the Walkers Cay Fault

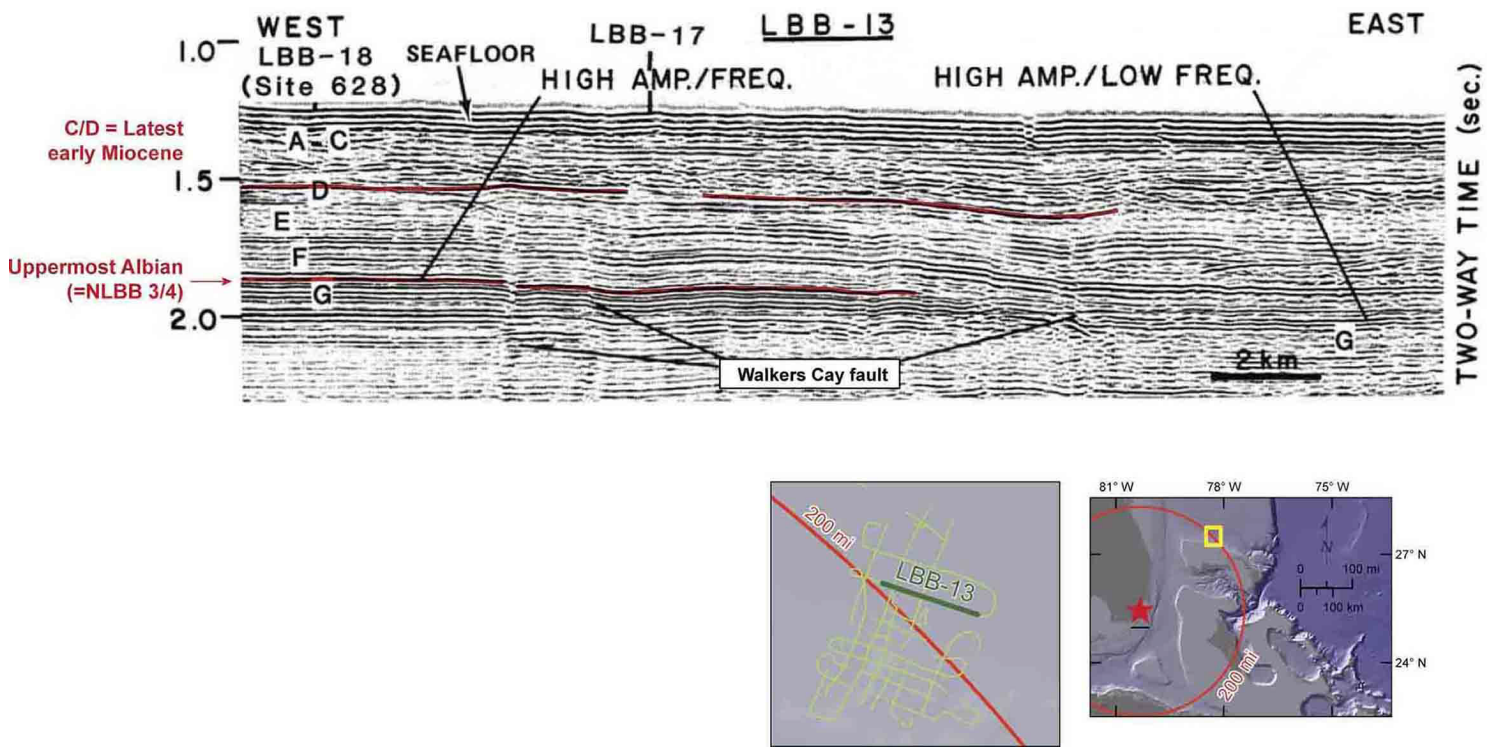


Figure 2.5.1-277 Seismic Line along Edge of Little Bahama Bank and Walkers Cay Fault

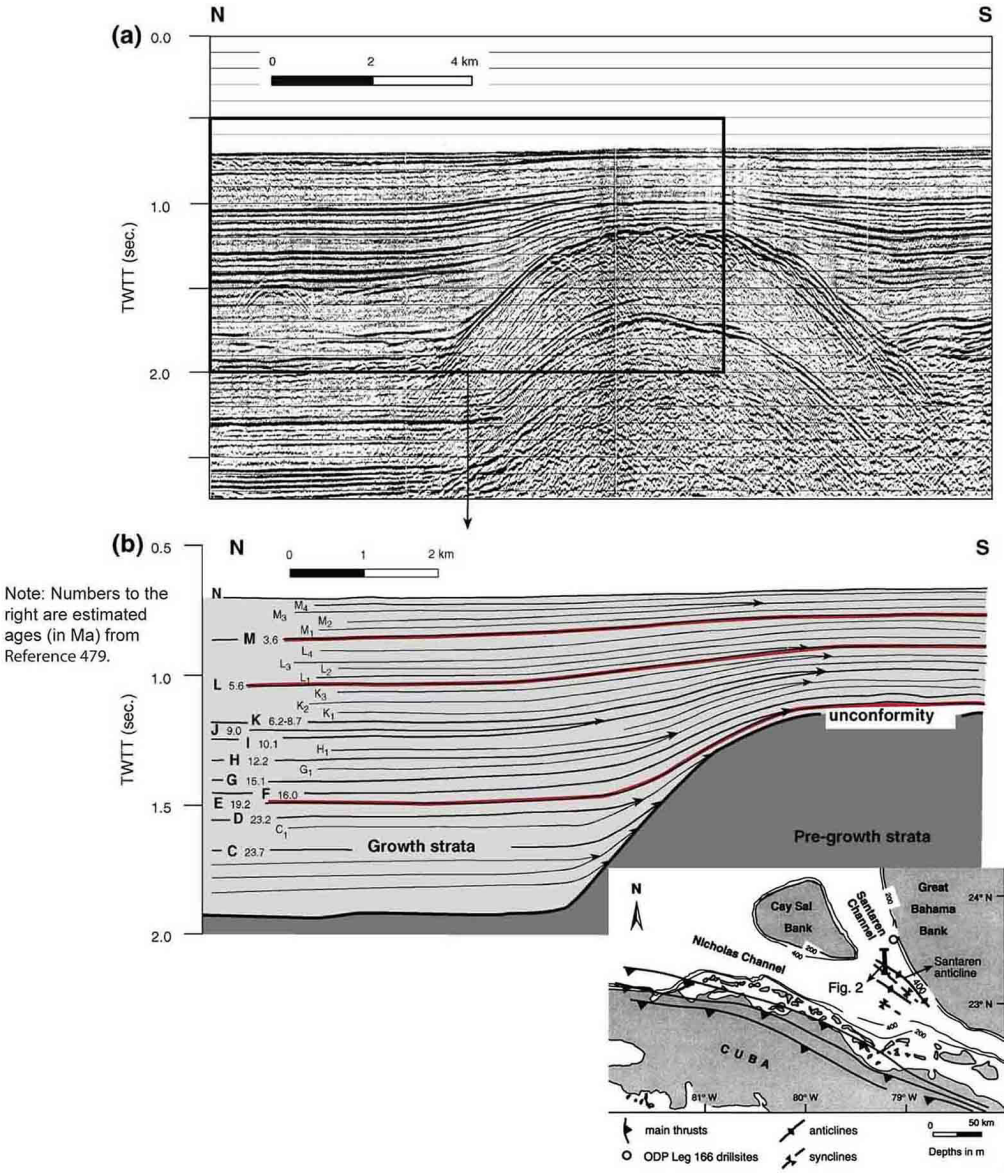


Figure 2.5.1-278 Seismic Line and Interpretation across the Santaren Anticline