



Admitted: 03/24/2009
 Rejected:

Withdrawn:
 Stricken:

Southern Nuclear Operating Company
 Vogtle Early Site Permit Application
 Part 2 - Site Safety Analysis Report

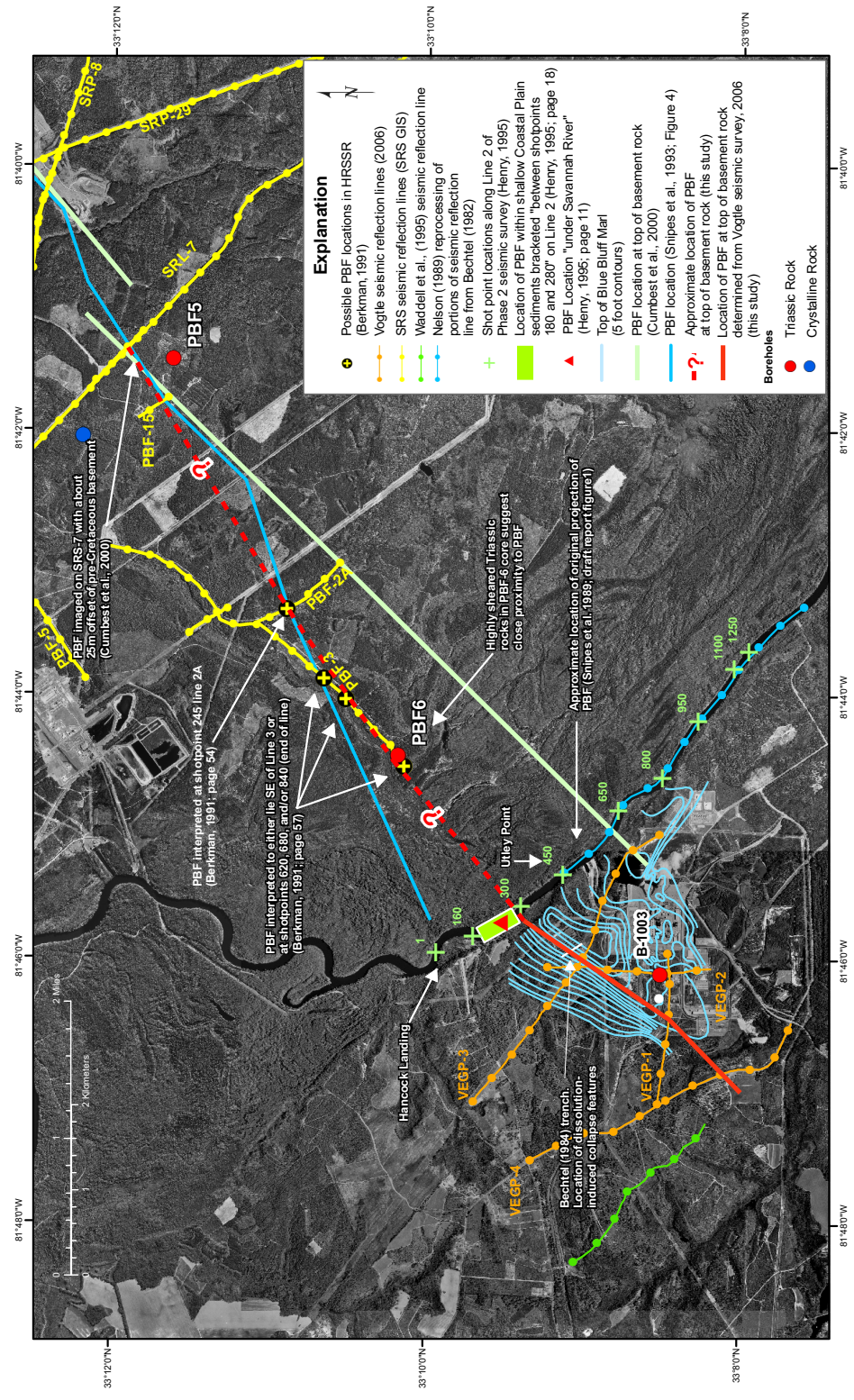


Figure 2.5.1-34 Location of Pen Branch Fault

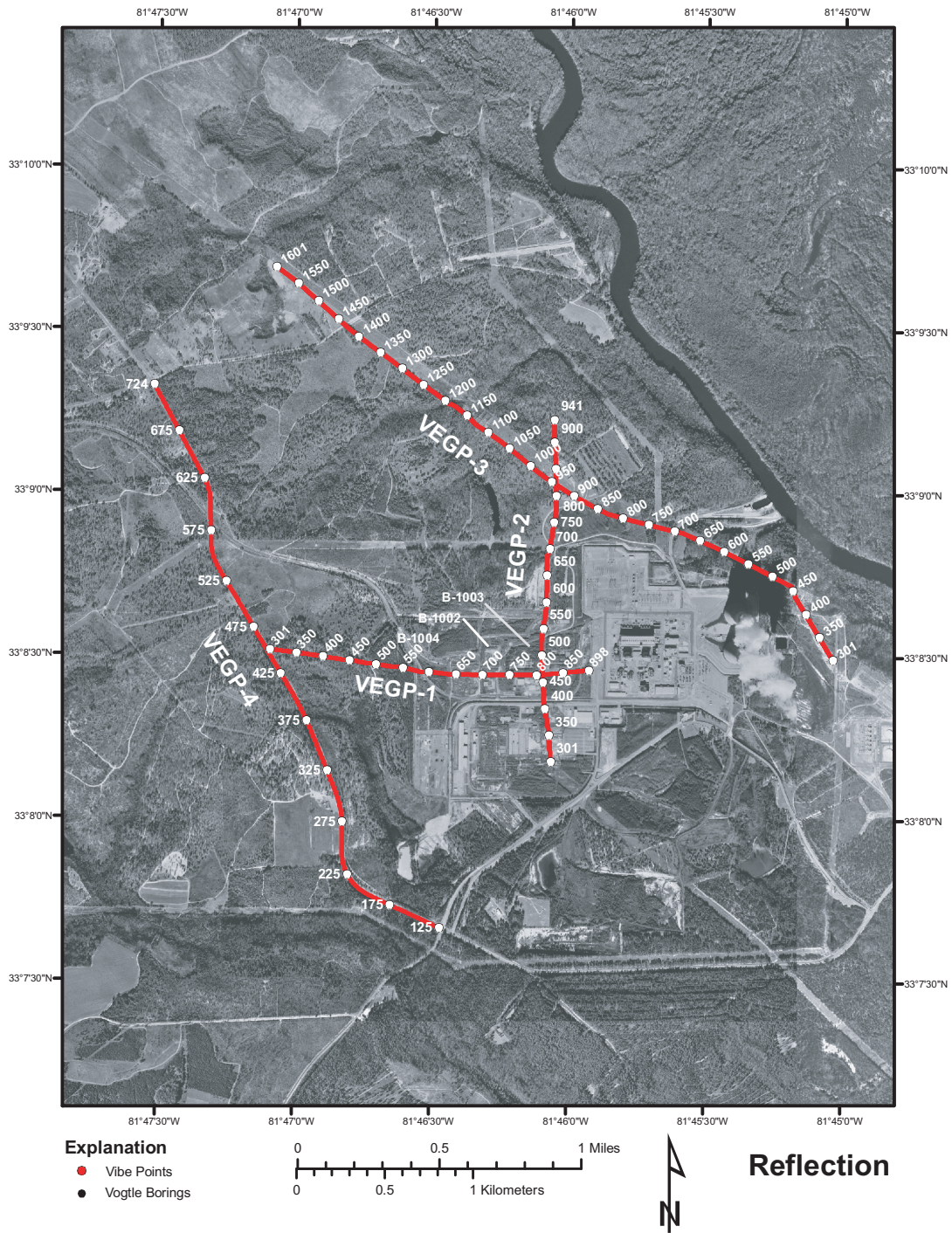


Figure 2.5.1-35 Seismic Reflection Array

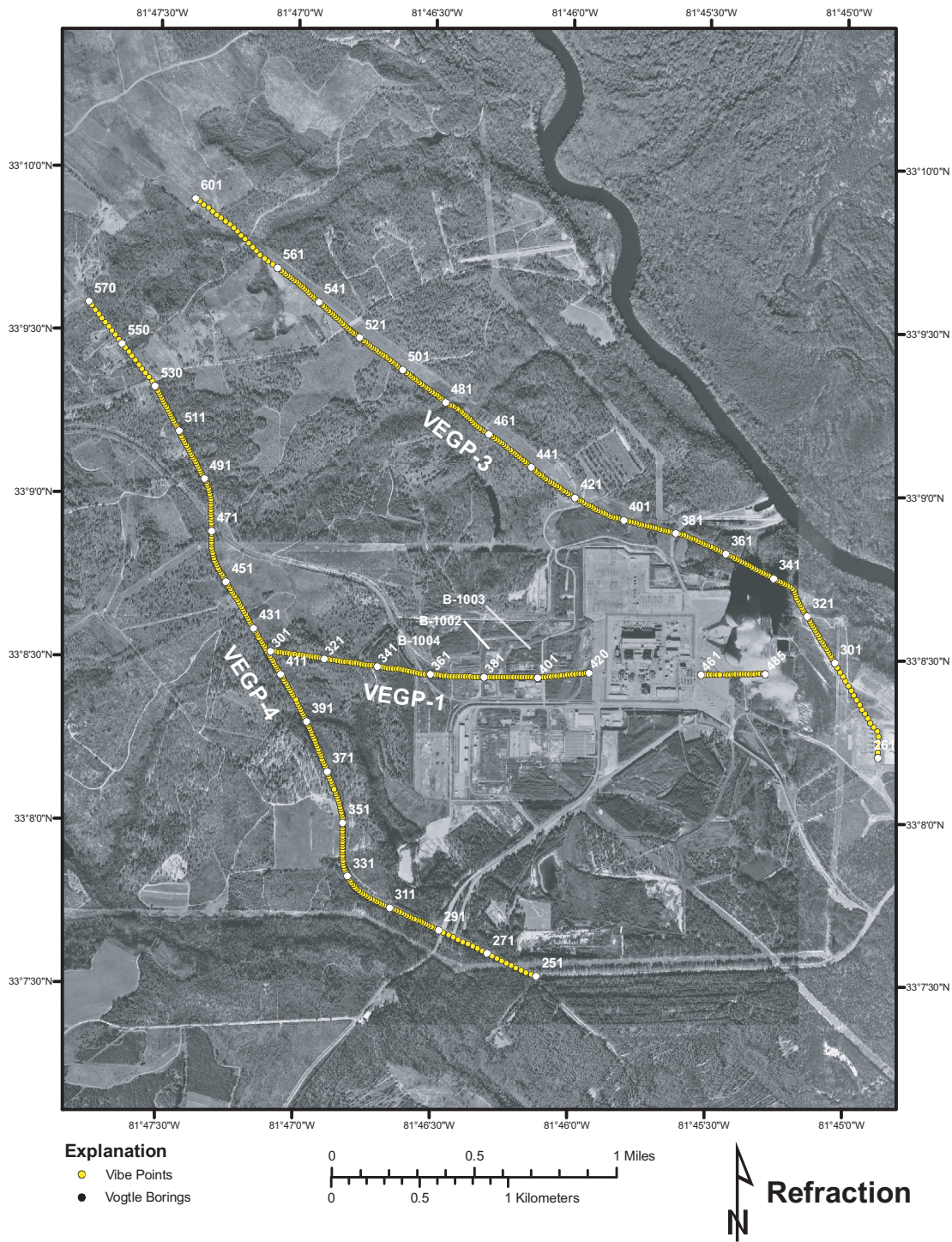


Figure 2.5.1-36 Seismic Refraction Array

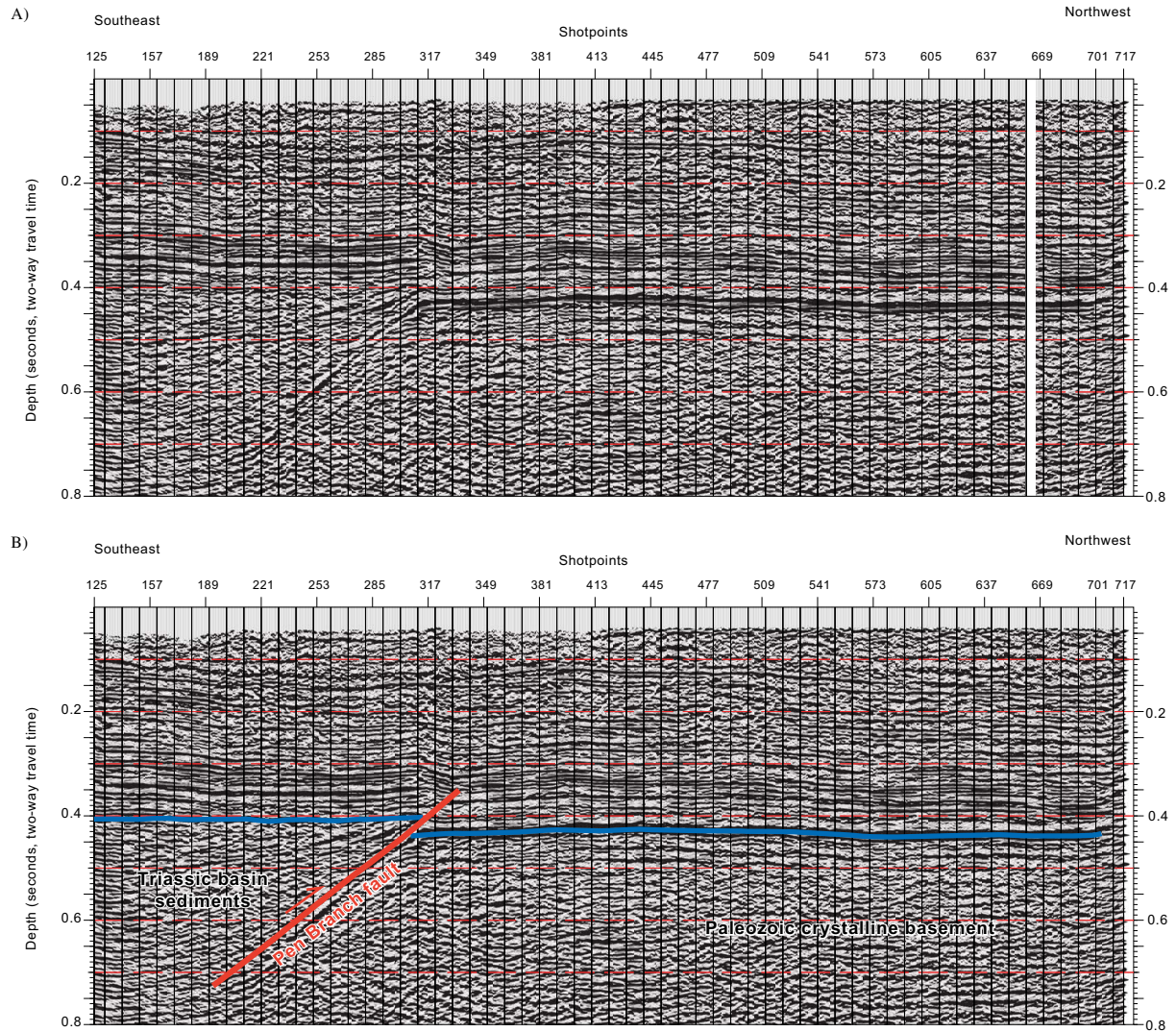


Figure 2.5.1-37 (A) Seismic Reflection Line 4 (Time Section; Display Velocity = 12,000 fps)
(B) Interpretation (Blue Line Represents Top of Basement)

AGE				UNIT	DEPTH (FT)	ELEVATION (FT MSL)	
Cenozoic	TerTiary	Eocene	Upper	Barnwell Group • Tobacco Road Sand • Dry Branch Formation • Clinchfield Formation ○ Utley Limestone Member	Ground surface	+218	
			Middle	Claiborne Group • Lisbon Formation ○ Blue Bluff Member • Still Branch Sand • Congaree Formation	74	+144	
			Lower		88	+130	
		Paleocene	Upper	• Snapp Formation • Black Mingo Formation	173	+50	
			Lower		216	+7	
					331	-108	
	Mesozoic	Cretaceous	Upper		• Steel Creek Formation	477	-254
					• Gaillard Formation/ Black Creek Formation	587	-364
				• Pio Nono Formation / Unnamed Sand	798	-575	
				• Cape Fear Formation	858	-635	
Triassic				Triassic (Dunbarton) basin	1049	-826	
					Boring terminated at 1338		

Note: The site stratigraphic column is based primarily on cored boring B-1003. The data on the Utley Limestone and Blue Bluff Marl have been revised based on more extensive data from the ESP and COL borings.

Figure 2.5.1-38 Site Stratigraphic Column

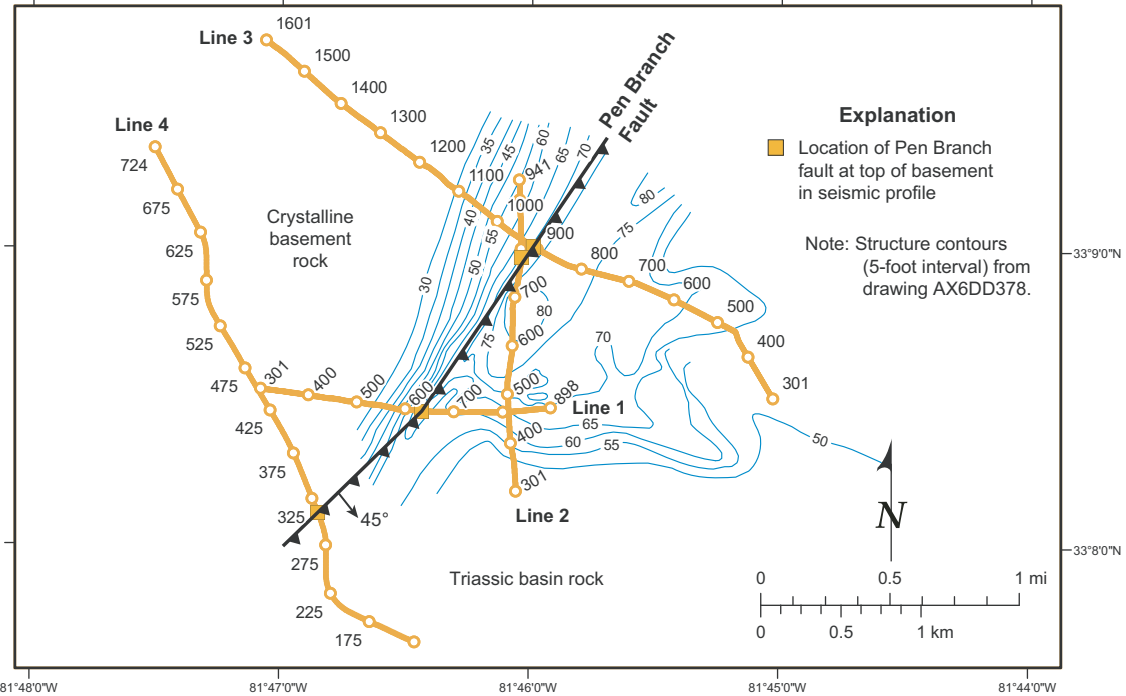
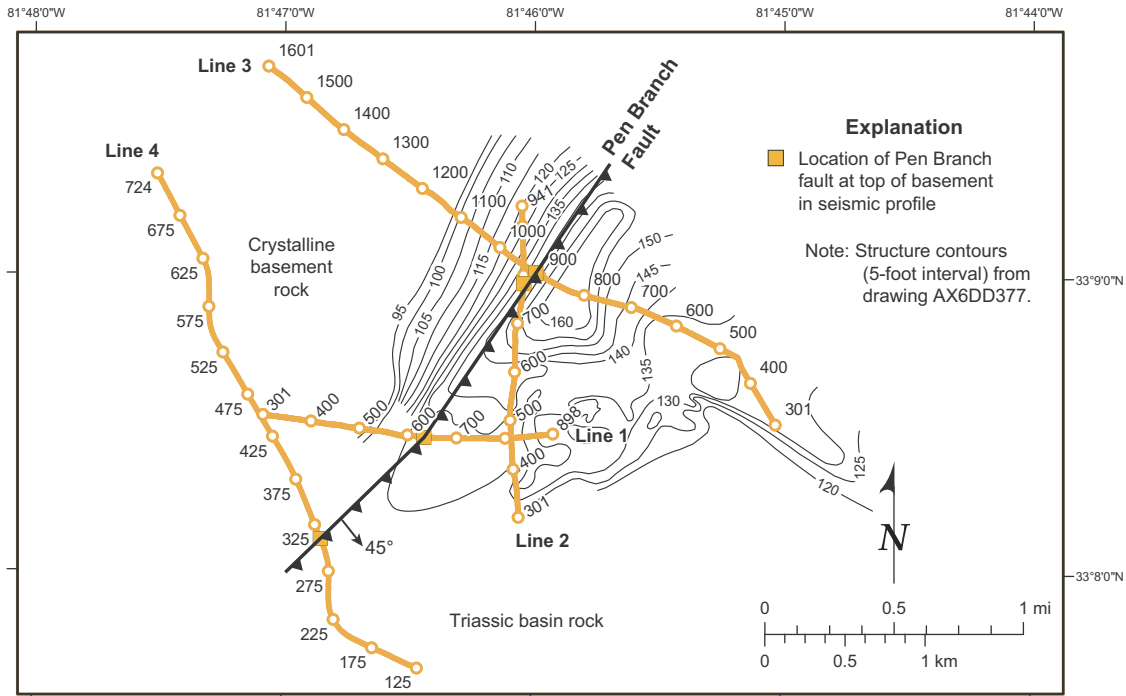


Figure 2.5.1-39 Location of the Pen Branch Fault at Top of Basement Beneath the Overlying Monocline in the Blue Bluff Marl

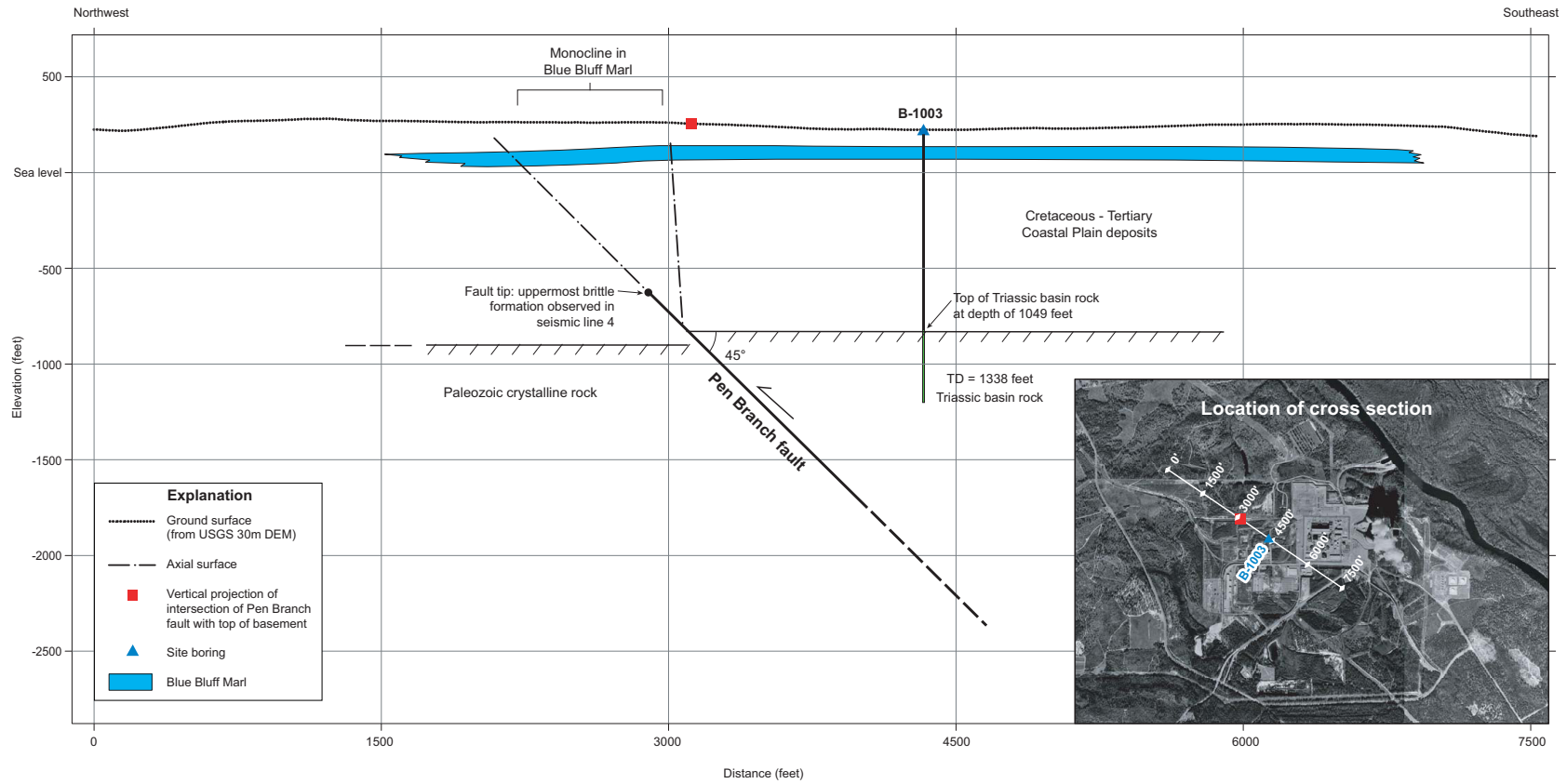


Figure 2.5.1-40 Northwest-Southeast Cross Section Showing Pen Branch Fault Beneath VEGP Site

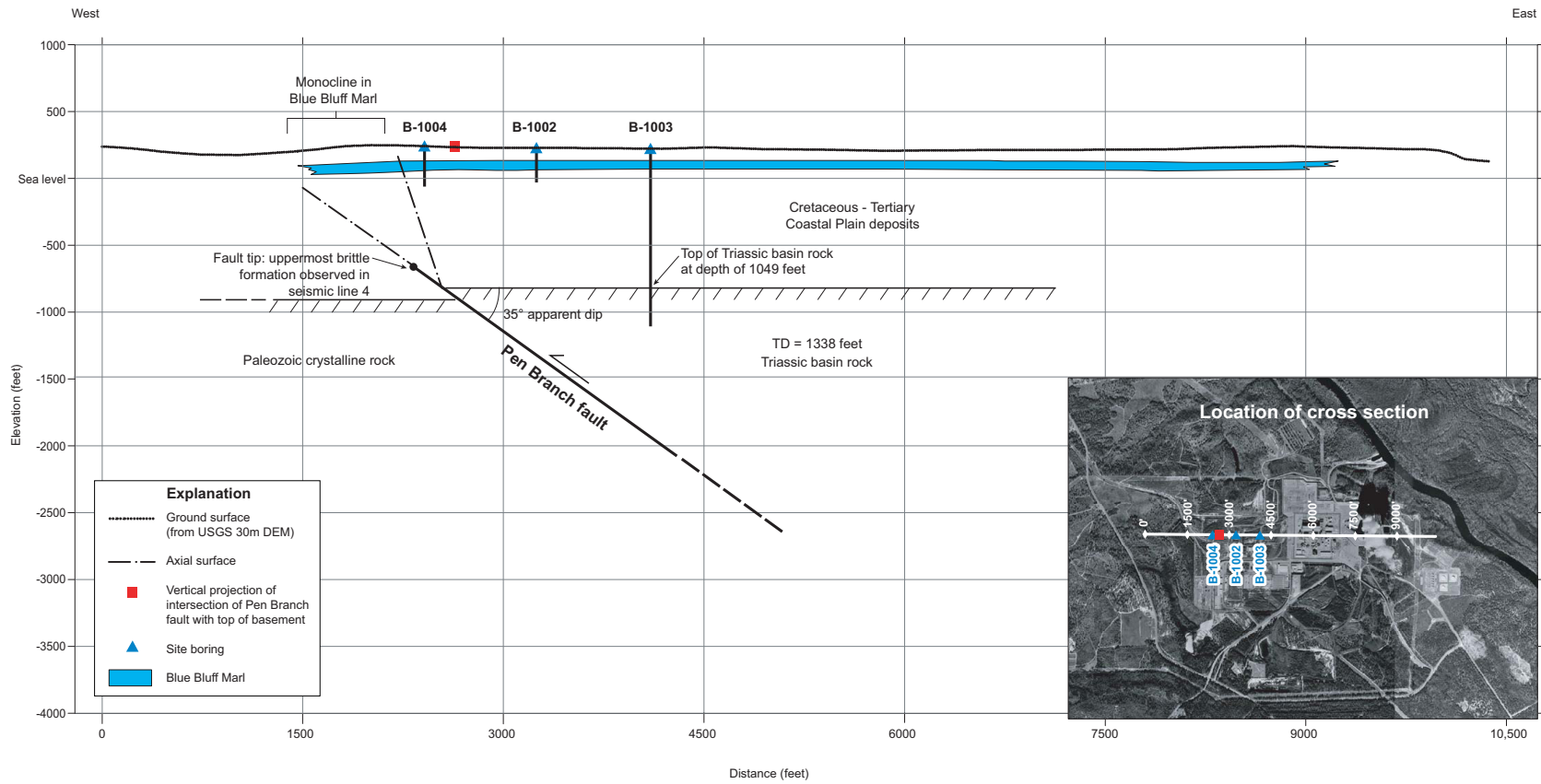


Figure 2.5.1-41 East-West Cross Section Showing Pen Branch Fault Beneath VEGP Site

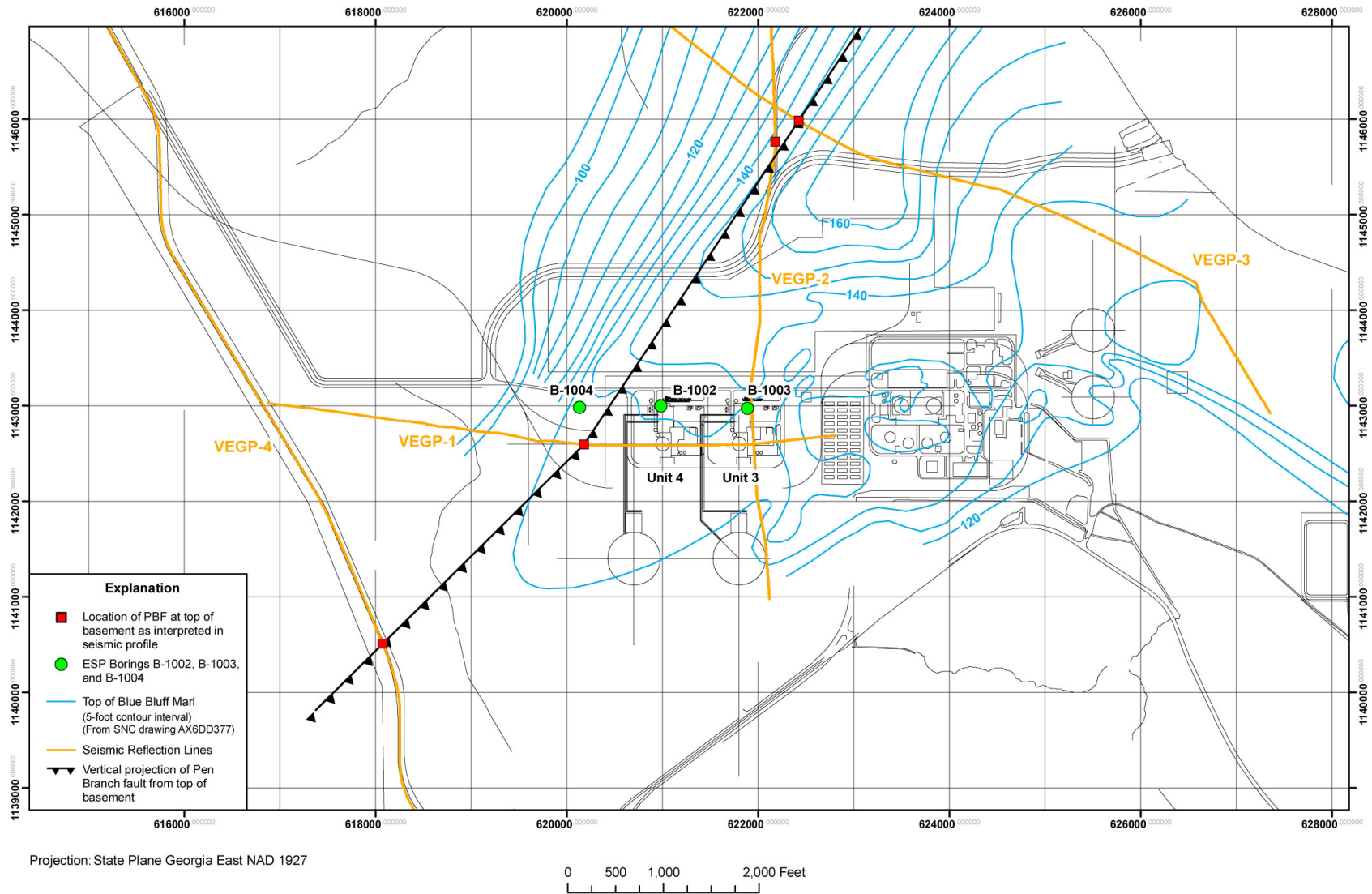


Figure 2.5.1-42 VEGP Site Plant Layout

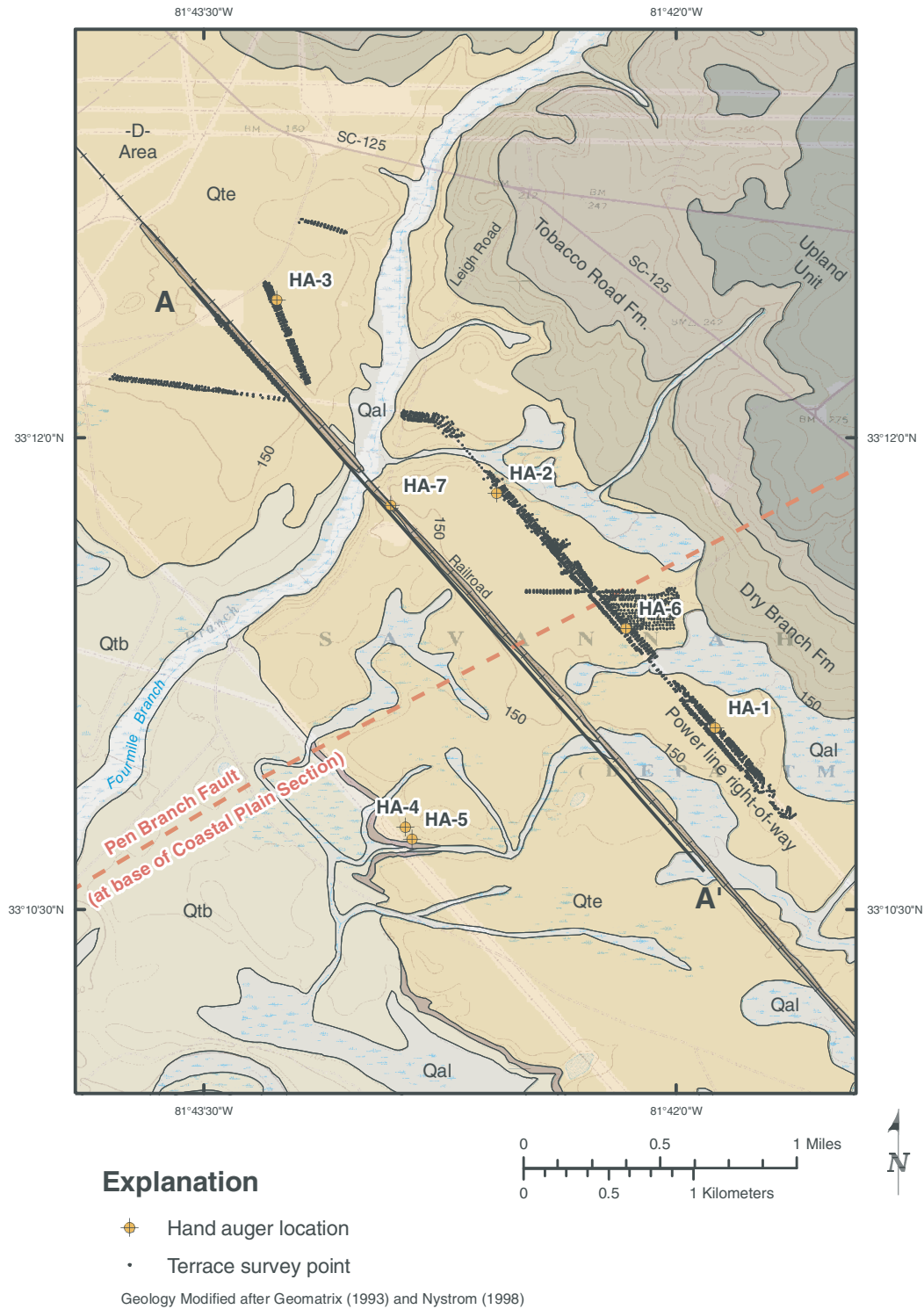


Figure 2.5.1-43 Geologic Map of Qte Terrace Study Area

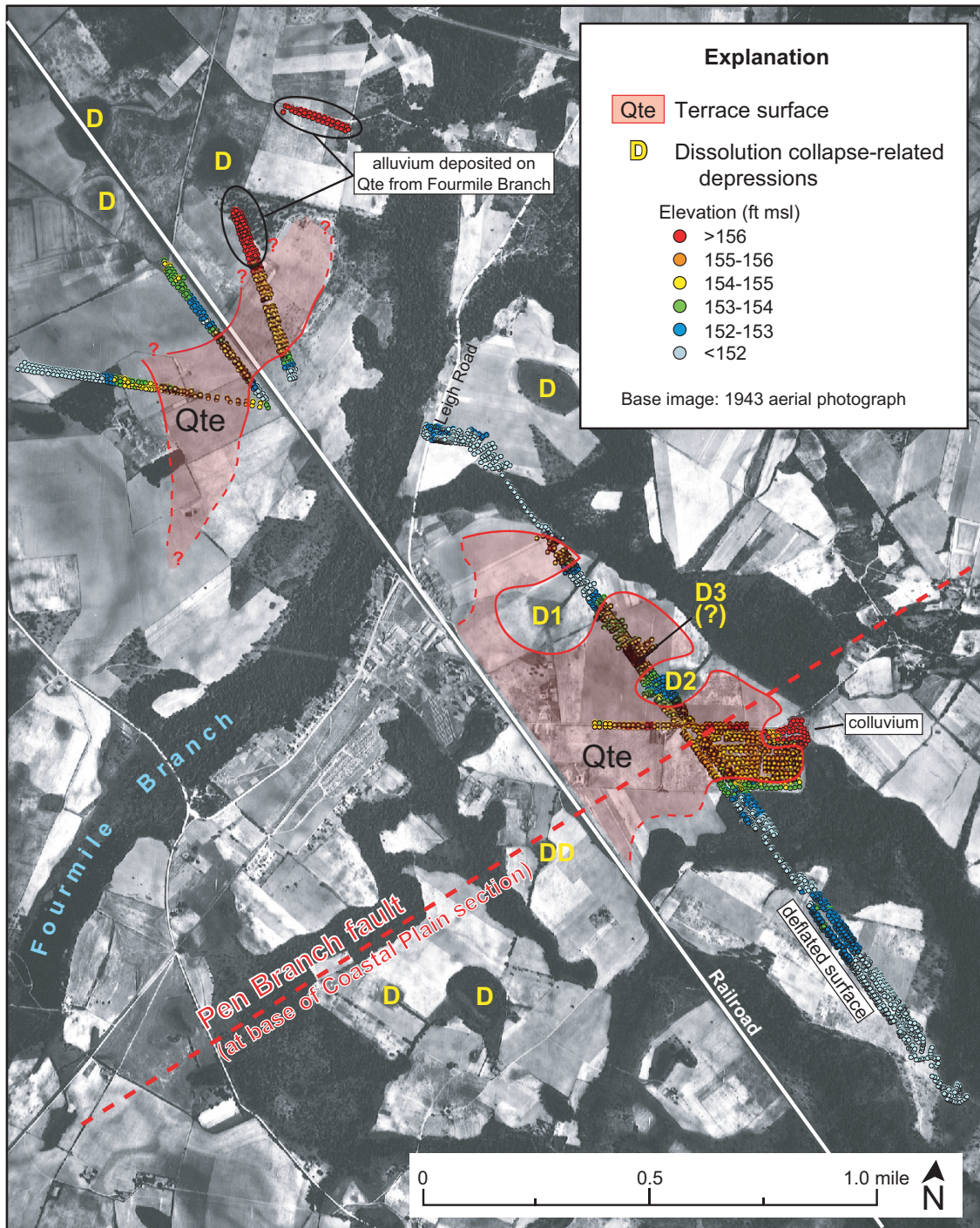


Figure 2.5.1-44 Geomorphic Map Showing Best-preserved Remnants of Qte Terrace Surface (Red Shading) in Study Area at the SRS. Yellow Ds Indicate Dissolution Collapse-related Depressions. Base Image is 1943 Aerial Photograph.

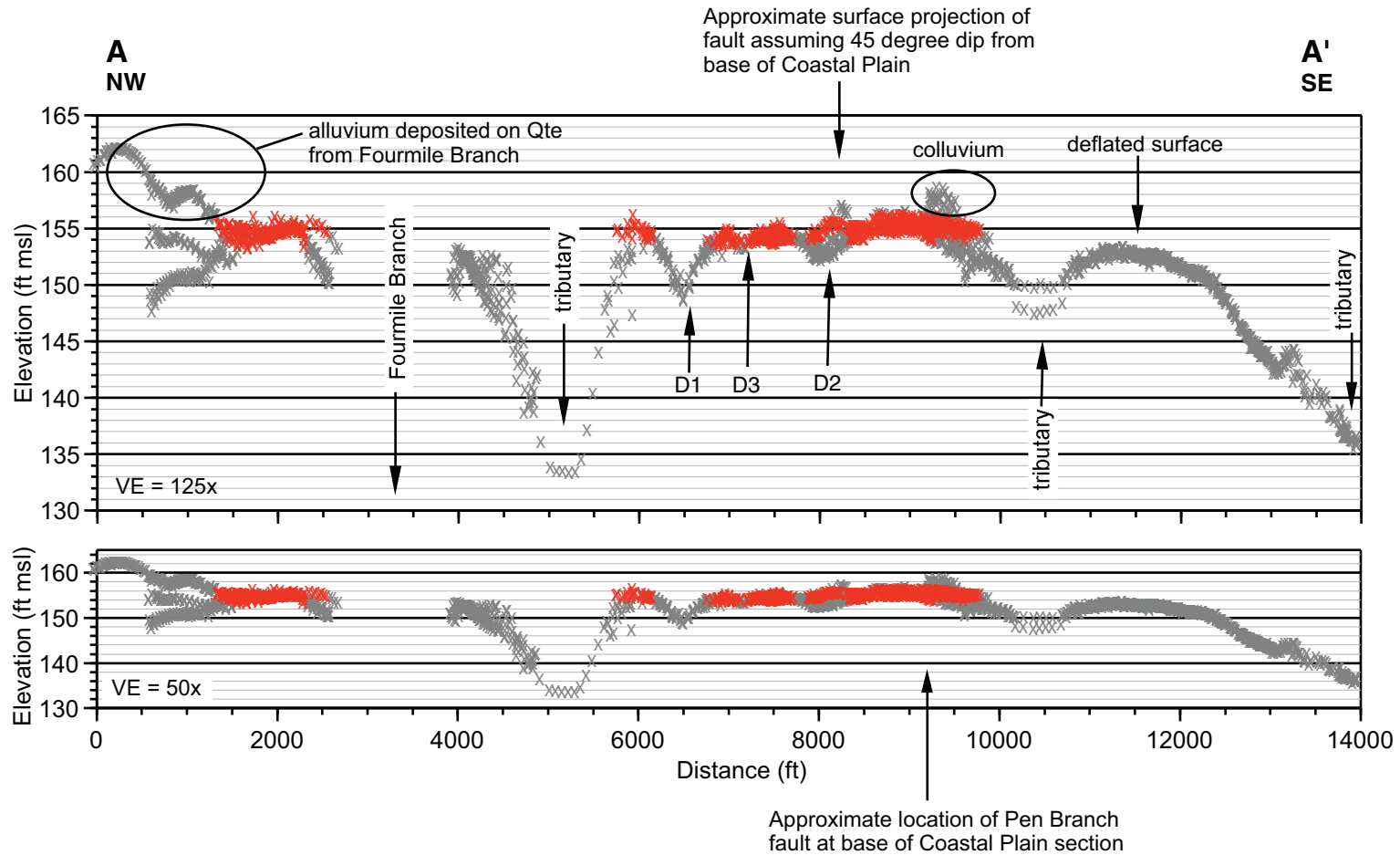


Figure 2.5.1-45 Longitudinal Profile A-A' from SRS Qte Terrace Surface. Points Interpreted as Representing the Best-preserved Remnant of the Qte Surface are Shown in Red, all Other Points that Do Not Represent the Terrace Surface are Shown in Gray.

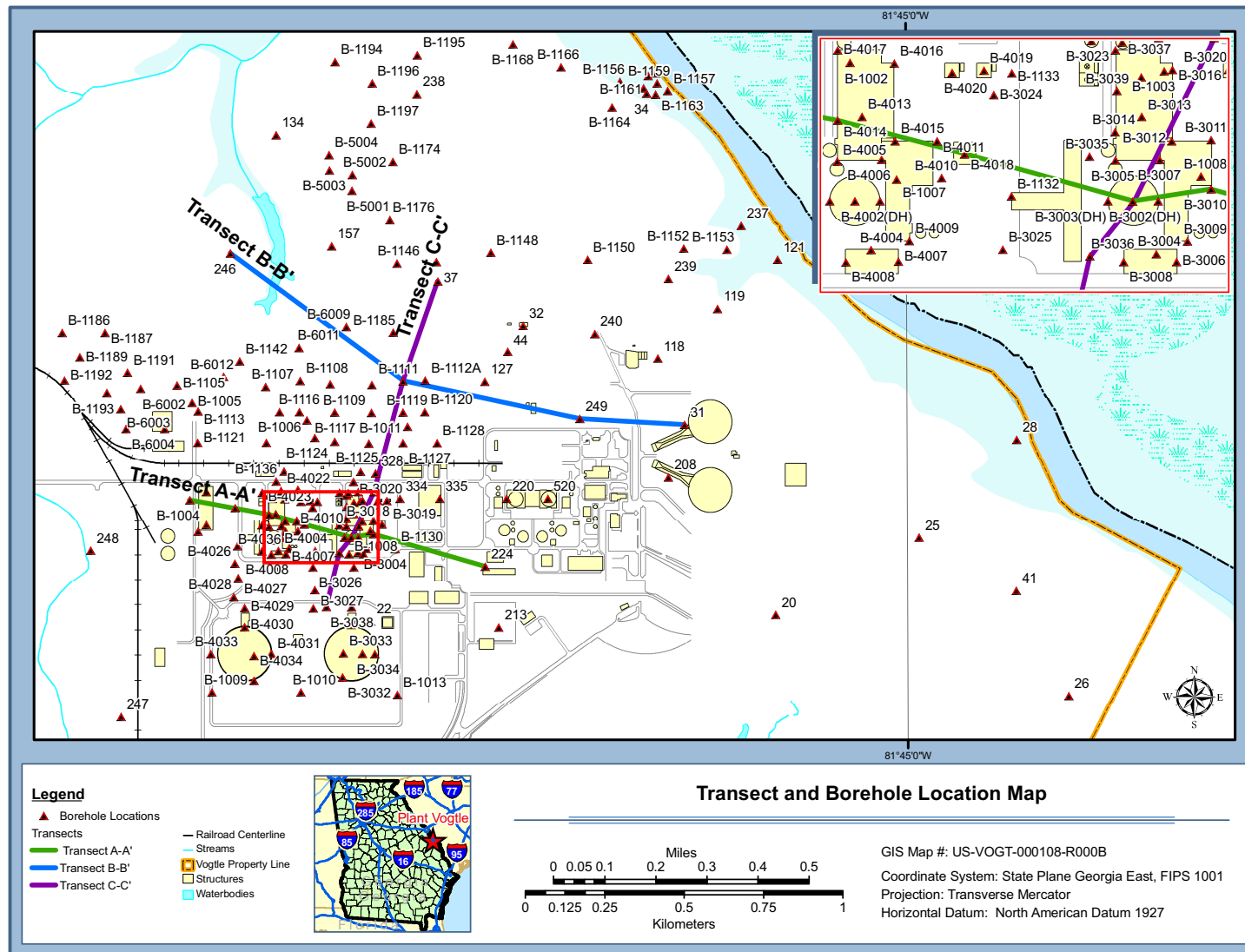


Figure 2.5.1-46 Transect and Borehole Location Map

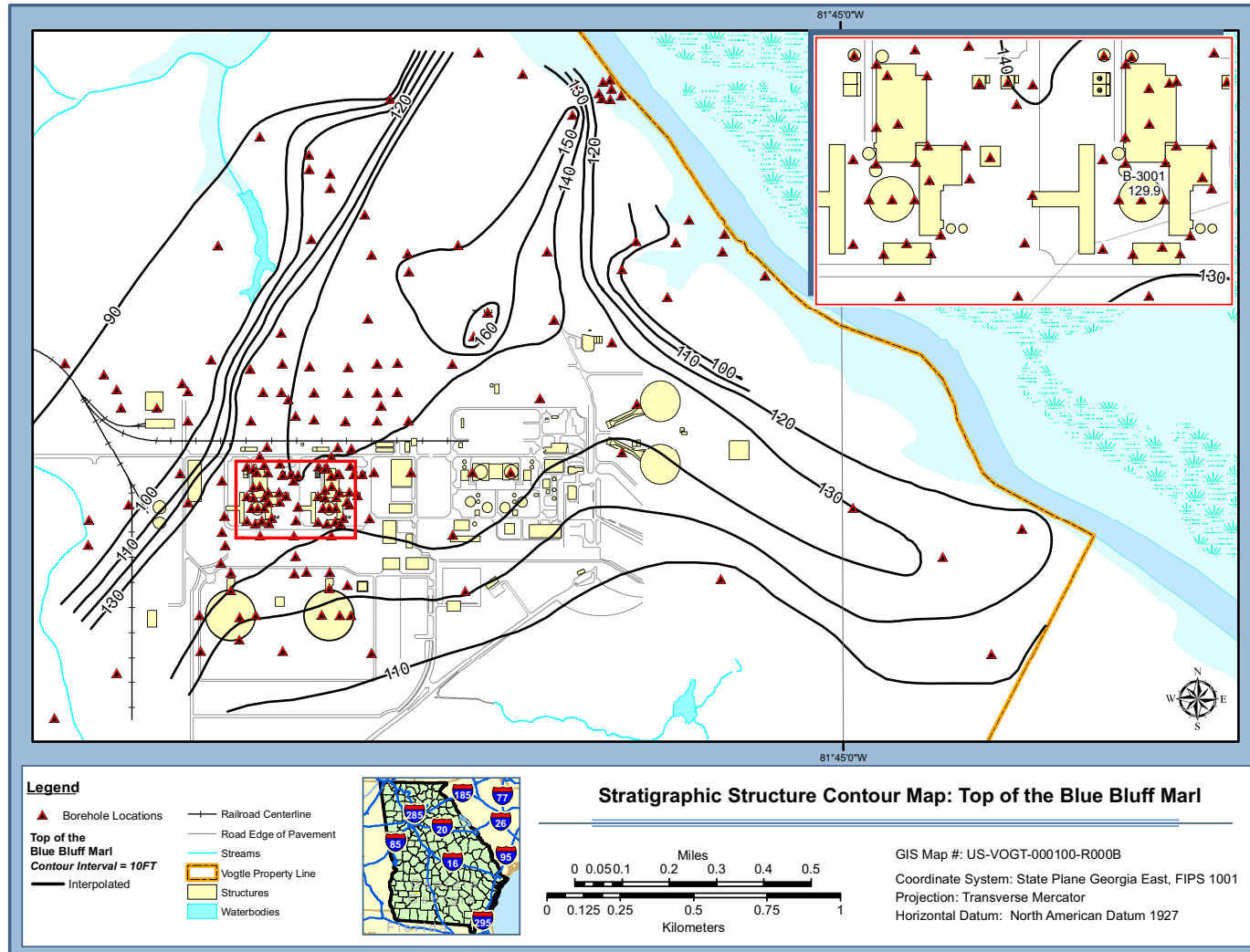


Figure 2.5.1-47 Stratigraphic Structure Contour Map: Top of Blue Bluff Marl

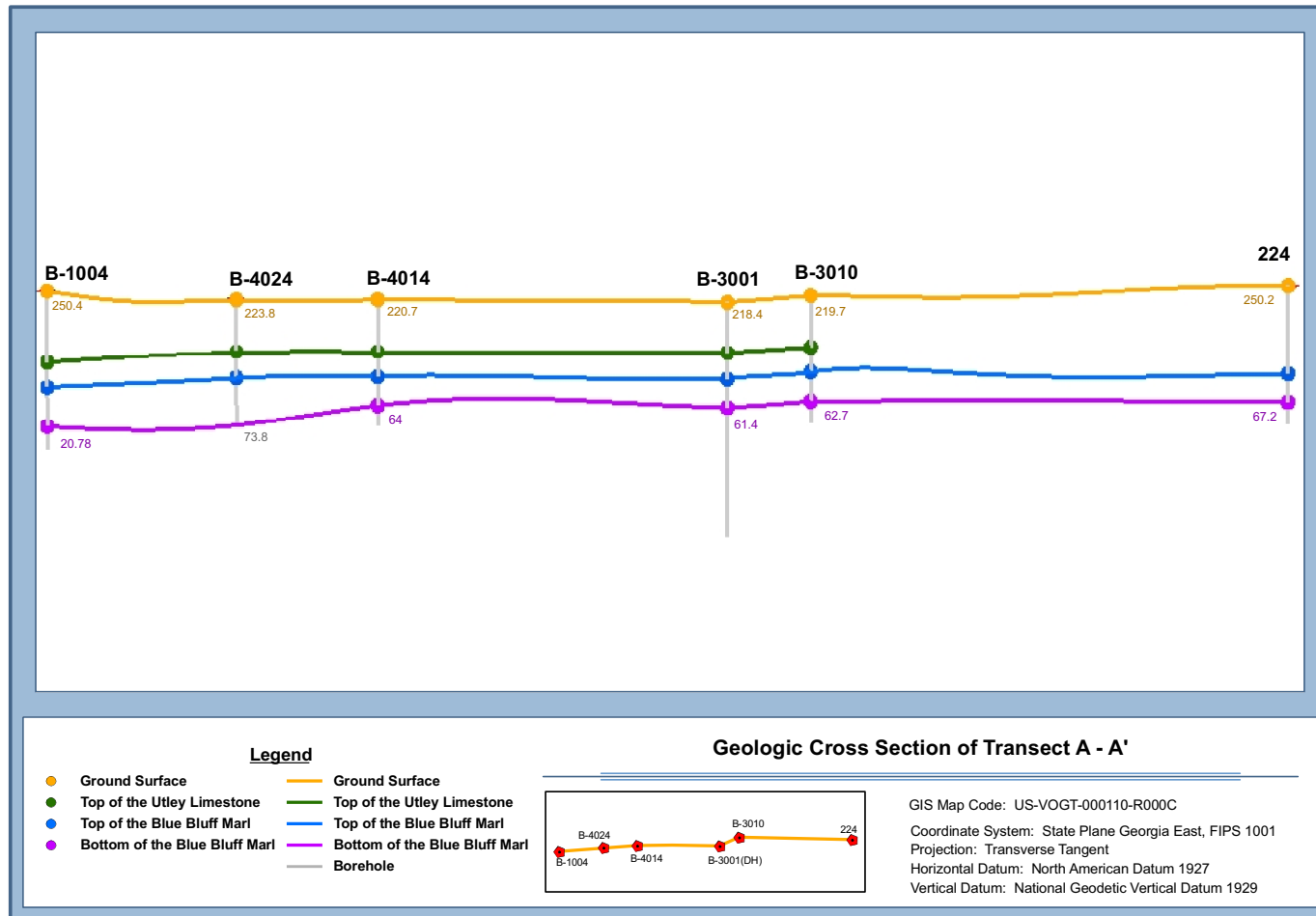


Figure 2.5.1-48 Geologic Cross section of Transect A-A'