














Triassic–Jurassic basins
(patterned subsurface;
rifting of Pangea)

Igneous Rocks



-  190–170 Ma dikes, sills, & flows (Rifting of Pangea)
-  325–285 Ma granitoid plutons (Modern age dates)
-  350–325 Ma granitoid plutons (Modern age dates)
-  380–355 Ma granitoid plutons (Modern age dates)
-  Likely Ordovician plutons (no age dates)
-  Ordovician plutons (Modern age dates)
-  Greenstone and amphibolite (Neoproterozoic to Ordovician) of arc, MORB, and continental affinities. Only Blue Ridge units shown; includes Catoclin Fm. (VA) & Hillabee Greenstone (AL–GA).
-  Ultramafic rocks (Neoproterozoic to Ordovician)
-  ~735 Ma rift-related alkalic plutons (Failed rifting of Rodinia)

Laurentian Platform & Rifted Margin

Clastic Wedges

-  Alleghanian (Mississippian–Pe)
-  Acadian and Neoacadian (Late Dev.–early Mississippian)

Taconian

-  Martinsburg–Tuscarora (Caradoc to Llandovery)
-  Blountian–Sevier–Rockmart Mineral Bluff (Murphy syncline in Blue Ridge) (Llanvirn–Llandeilo)

Platform Rocks


-  Cambrian–Ordovician clastic to carbonate

Rifted Margin Rocks

-  Neoproterozoic–Early Cambrian clastic & volcanic rocks. Includes Baltimore terrane.

Terranes Accreted During Taconian Events


(Laurentian affinity, distal, deep-water deposits)

-  **Hamburg complex (Hc)**
Allochthons and olistostromes of deep-water, distal margin clastics and carbonates (Dauphin Formation) thrust into the foreland over the Myerstown euxinic platform limestone, and covered by the Martinsburg Formation. Includes greenschist facies equivalent clastic Cocalico Formation to the SE.

-  **Westminster terrane**
Neoproterozoic/Cambrian–Middle Ordovician deposition & volcanism. Sedimentary component >>> volcanic.


Terranes Accreted During Neoacadian to Alleghanian Events

(distal, deep-water deposits and arc-to-MORB volcanics)

-  **Tugaloo (–Milton–Potomac–Philadelphia) terrane**
Distal Laurentian; Neoproterozoic/Cambrian–Middle Ordovician deposition & volcanism, minor 1.15 Ga basement; arc-to-MORB volcanics; mélanges. Abundant Ordovician plutons. Sedimentary component >> volcanic.


-  **Smith River allochthon**
Neoproterozoic metasedimentary and metavolcanic rocks; Ordovician plutons. May have Laurentian and Peri-Gondwanan provenance.

Carolina superterrane (peri-Gondwanan)


-  **Carolina terrane**
Supracrustal (low grade) components
Neoproterozoic deposition and arc volcanism to Ordovician (?) deposition.

-  **Charlotte terrane**
Infracrustal (high grade) components
Neoproterozoic deposition and arc volcanism.

Brunswick (Charleston) terrane

-  Rocks of largely unknown composition and provenance (likely peri-Gondwanan)

East Coast Magnetic Anomaly

-  Alleghanian deformation obscured by failed rifting and deposition of Triassic–Jurassic sediments of the South Georgia basin. Continues south to join with Wiggins–Suwannee suture.

— — — — — Thrust fault

- - - - - Possible buried terrane boundary

from Reference 2.5.1-85

PSEG Power, LLC

PSEG Site ESPA
Part 2, Site Safety Analysis Report

Site Region Lithostratigraphic Map
Explanation
FIGURE 2.5.1-8b

Rev 0