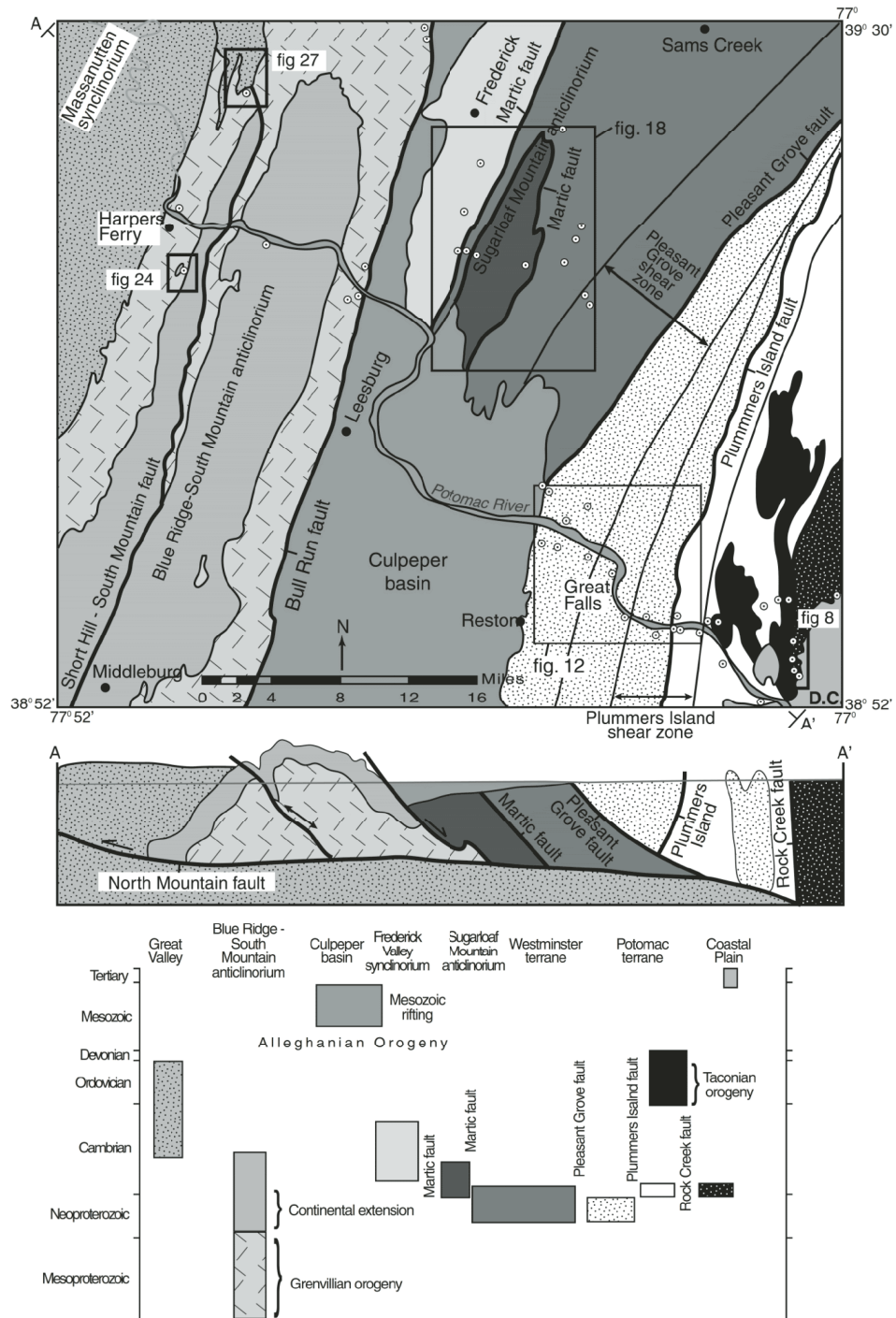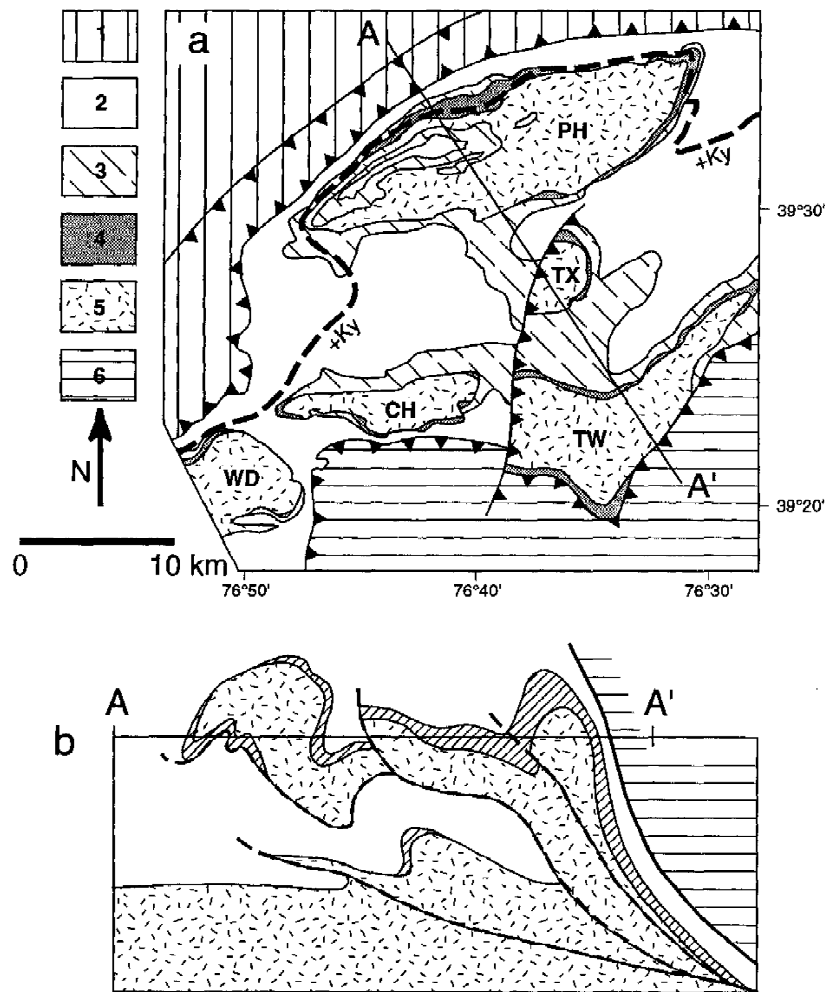**Figure 2.5-167— {Generalized Geologic Map and Cross Section in the Potomac River Region}**

REFERENCE: Southworth, 2006

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Figure 2.5-168— {Generalized Geologic Map and Cross Section of the Eastern Maryland Piedmont}

REFERENCE: Lang, 1996

(a) Generalized geologic map of the eastern Maryland Piedmont.
1 = Low- to medium-grade metasediments of the western Piedmont; 2 = Loch Raven Formation, mainly pelitic schist; 3 = Cockeysville Marble; 4 = Setters Formation, quartzite and pelitic schist; 5 = Baltimore Gneiss, felsic basement gneiss; 6 = Baltimore Mafic Complex, island arc complex that collided with the Baltimore Gneiss terrane (units 2-5) during the Taconic Orogeny (at approximately 470 Ma). Anticlines in which the Baltimore Gneiss is exposed are labeled PH (Phoenix), TX (Texas), TW (Towson), CH (Chattolanee), and WD (Woodstock).
The line labeled A-A' shows the approximate location of the schematic cross section shown in b.

(b) Schematic cross section A-A' through the Baltimore area.
The random dash pattern represents the Baltimore Gneiss; the diagonal line pattern represents the Cockeysville and Setters Formations combined; the unpatterned area is the Loch Raven Formation, and the horizontal line pattern represents the Baltimore Mafic Complex. Bold dashed lines indicate thrust faults inferred by Fisher on the basis of the structural style of similar units in the Philadelphia area.

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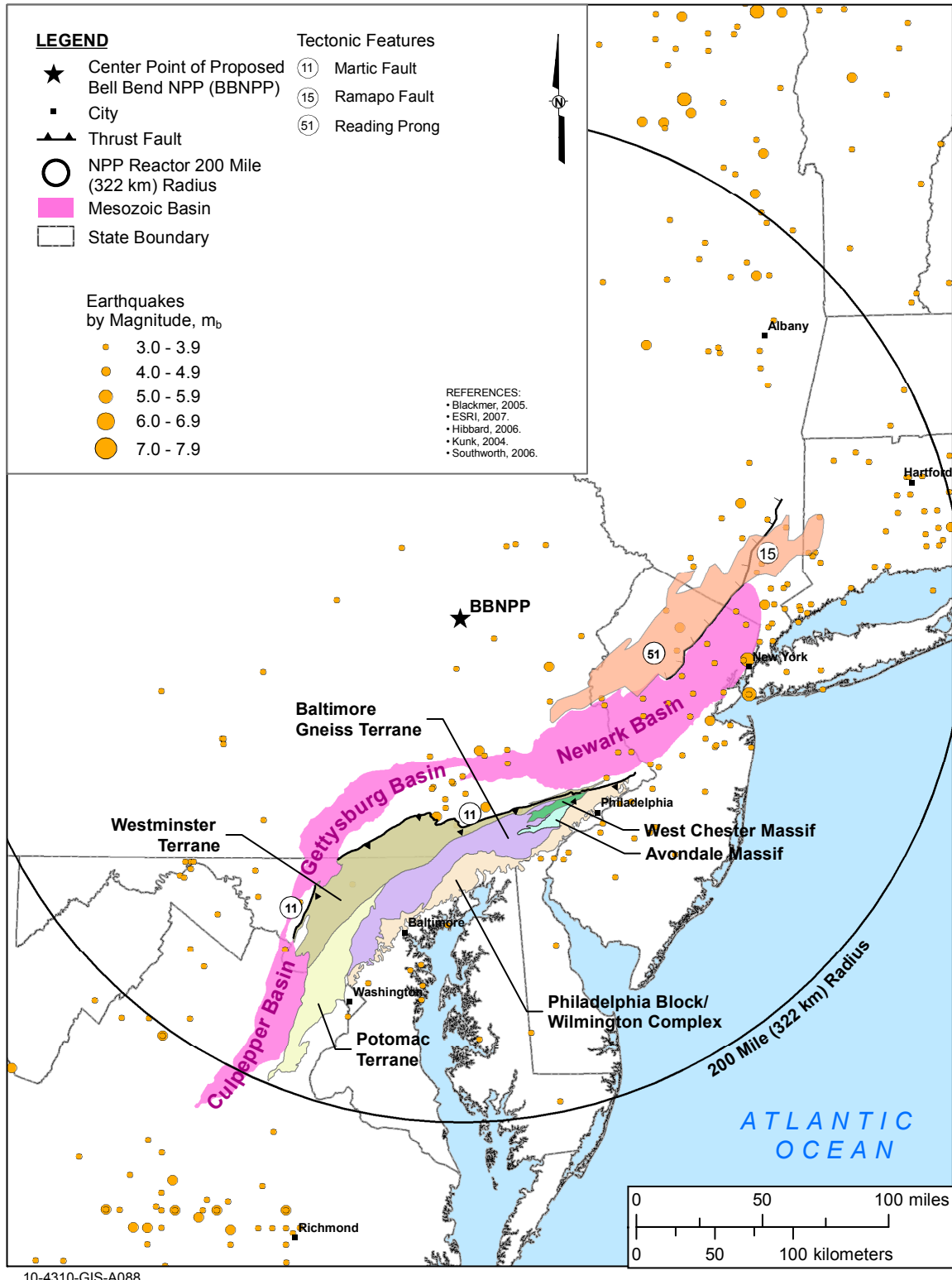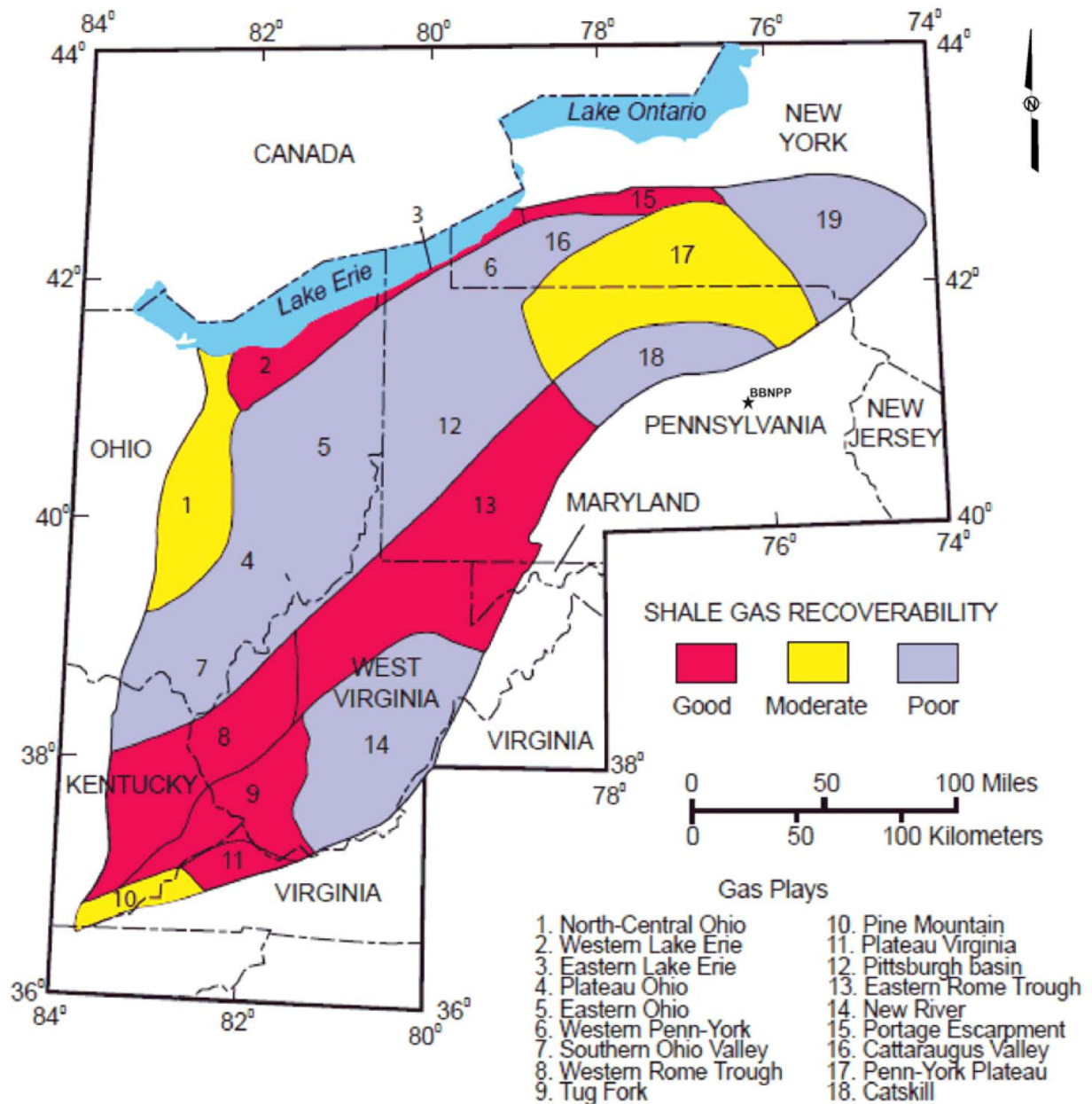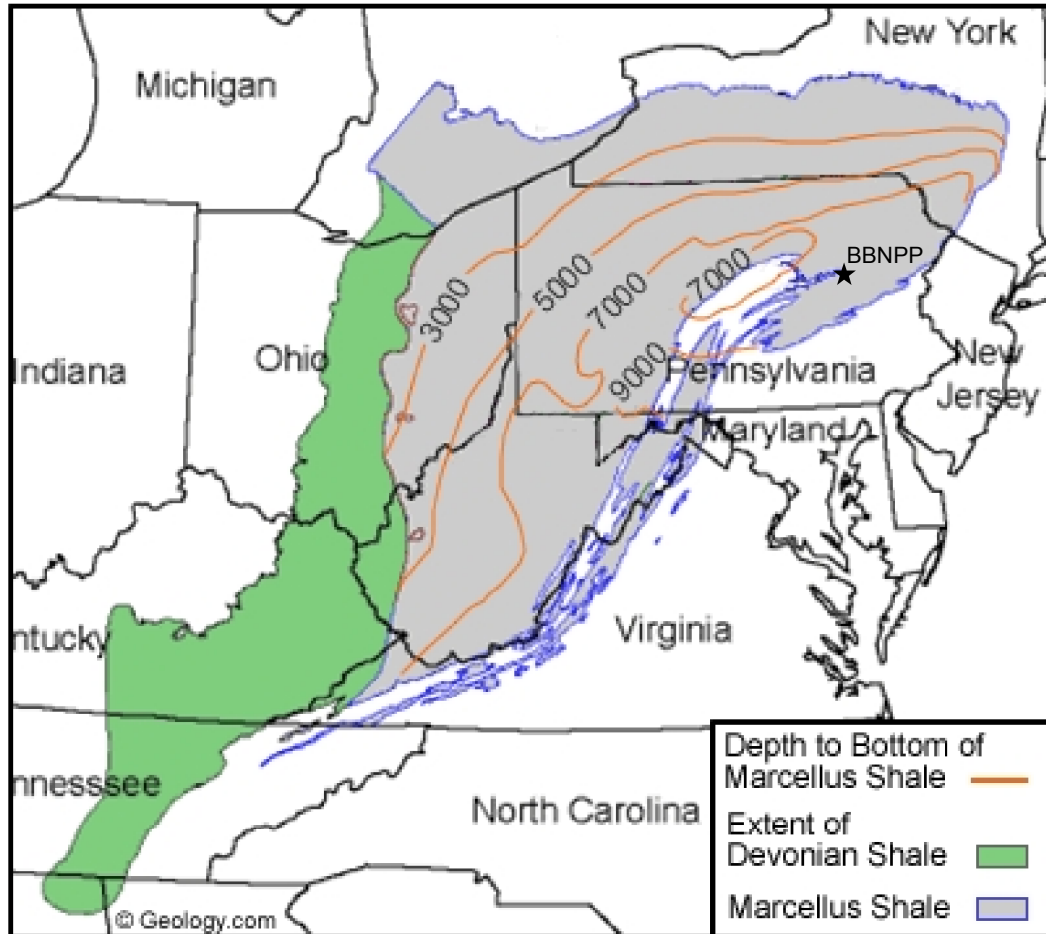**Figure 2.5-169— {Techtonostratigraphic Provinces within the Site Region (200 mile, 320 km Radius)}**

Supplement

Figure 2.5-170— {Devonian Gas Shale Recoverability Map}

REFERENCE:
 • Milici and Swezey, 2006.

Figure 2.5-171— {Marcellus Shale Contour Map}

REFERENCE:
• Sumi, 2008.

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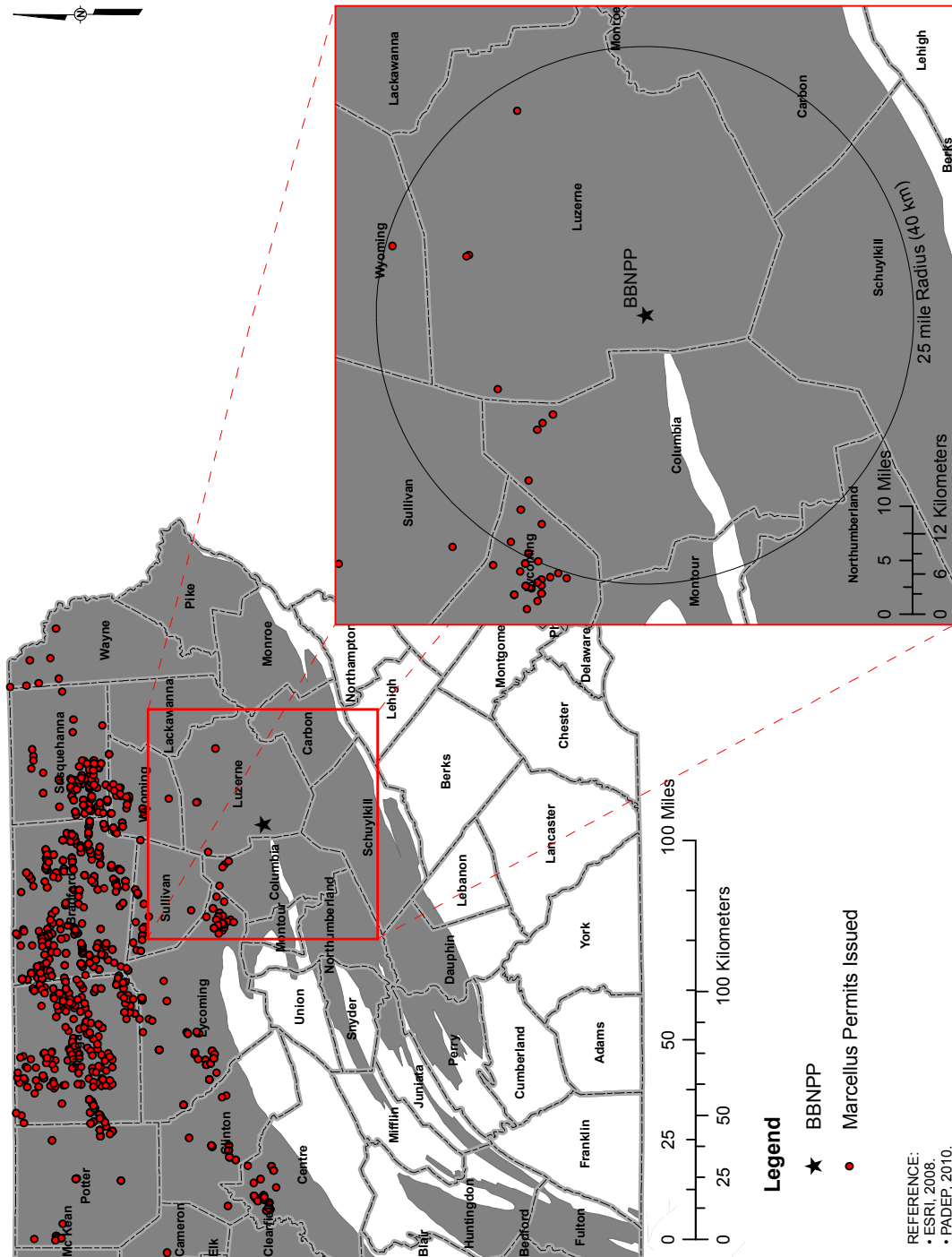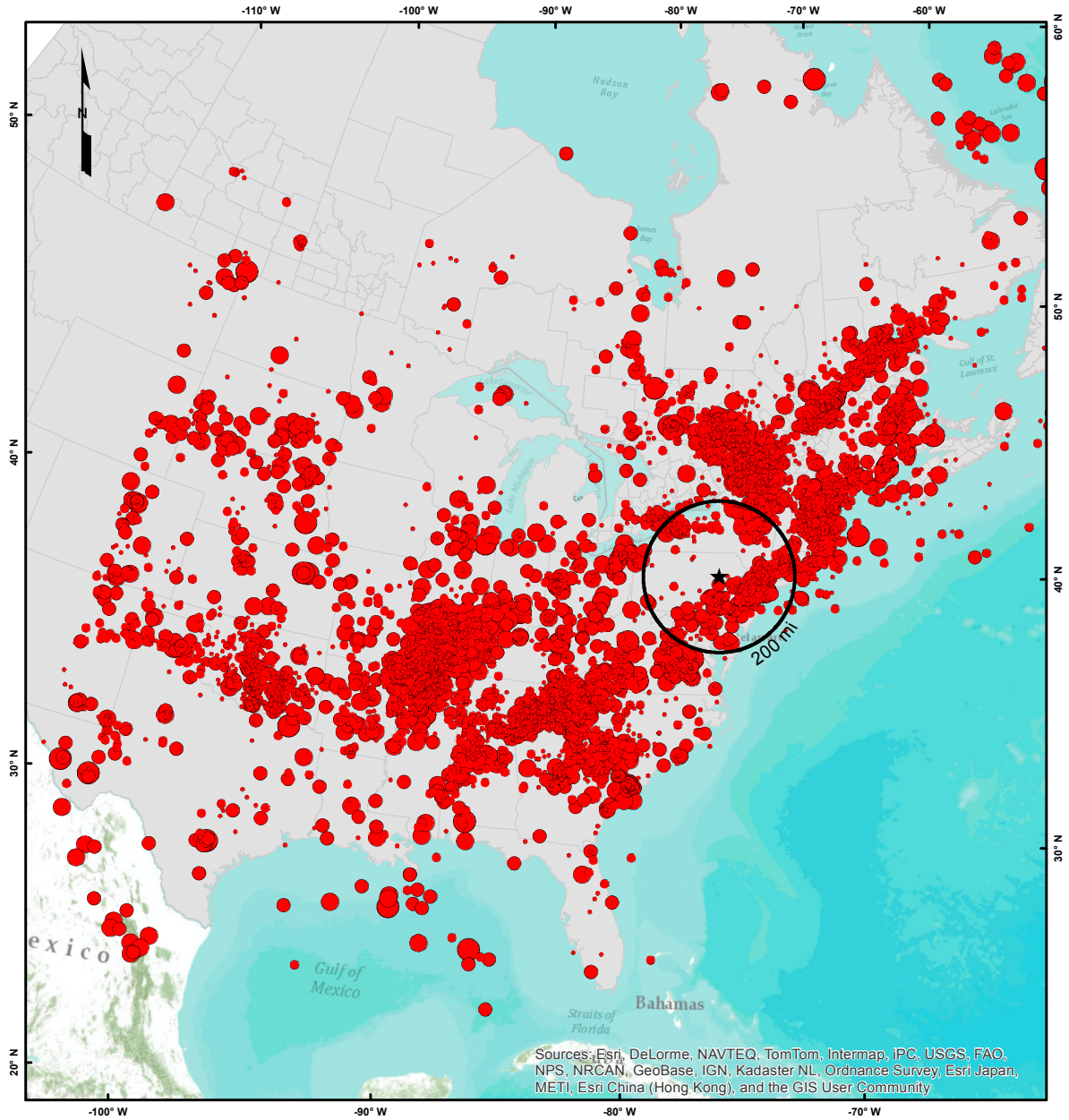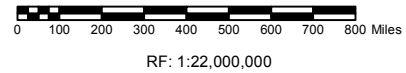Figure 2.5-172— {Eastern Pennsylvania Marcellus Shale Gas Wells}

Supplement

Figure 2.5-173— {Seismicity of the Central and Eastern United States}

Legend

★ Bell Bend NPP Site

▢ 200 Mile Radius

Earthquake Magnitude (E[M])

· 2.2 - 2.7

• 2.8 - 3.1

● 3.2 - 3.8

● 3.9 - 4.8

● >=4.9

RF: 1:22,000,000

Coordinate System: NAD 1983 UTM Zone 18N
Projection: Transverse Mercator
Datum: North American 1983

Reference(s):
1. EPRI/DOE/NRC (2012)

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Figure 2.5-174— {Master Logic Tree for Conceptual Approach to Seismic Source Characterization}

Conceptual Approach	Source Groups

Mmax Zones

Mmax
Zones
(0.4)

RLME Sources

Seismotectonic
Zones

Seismotectonic
Zones
(0.6)

RLME Sources

Reference(s):
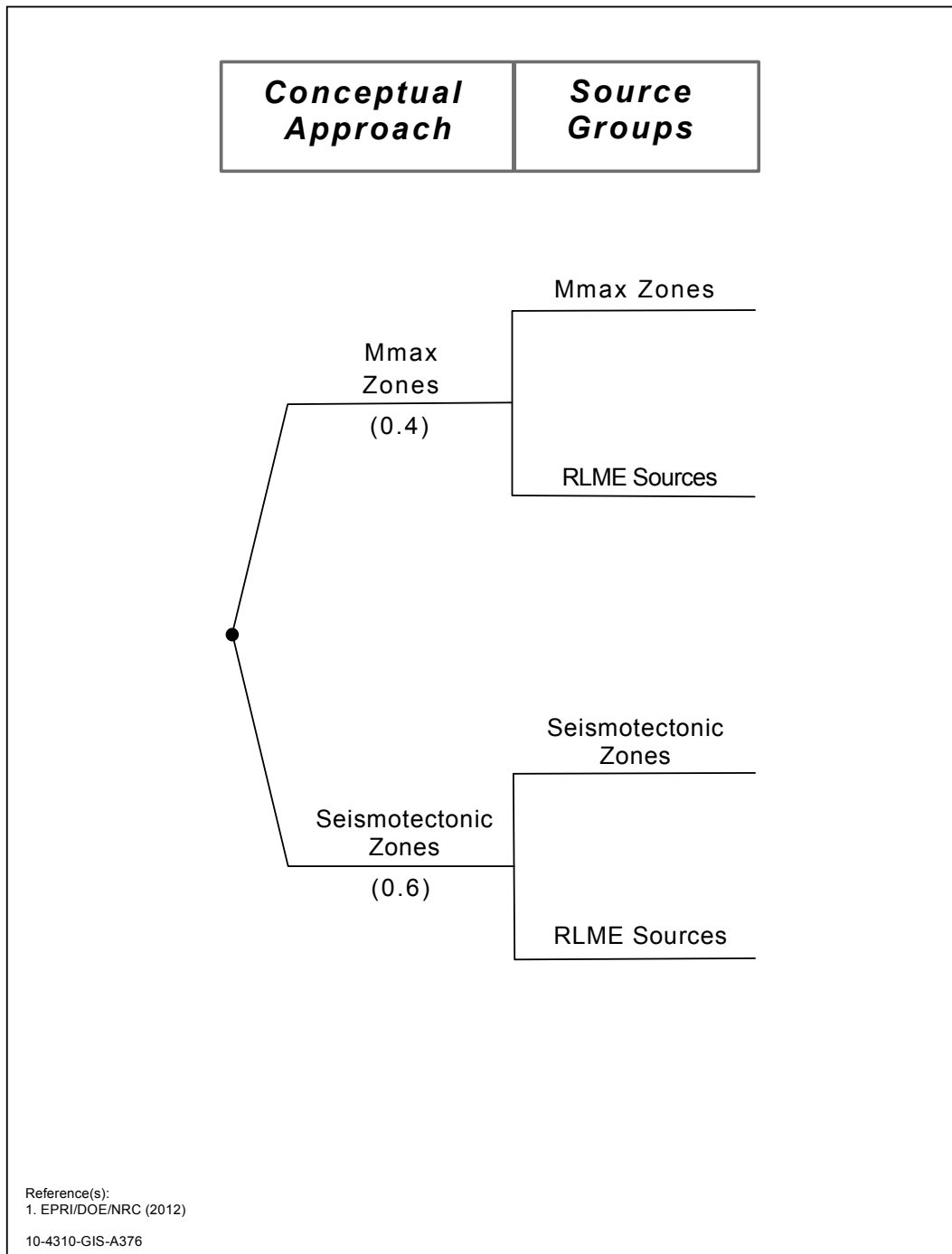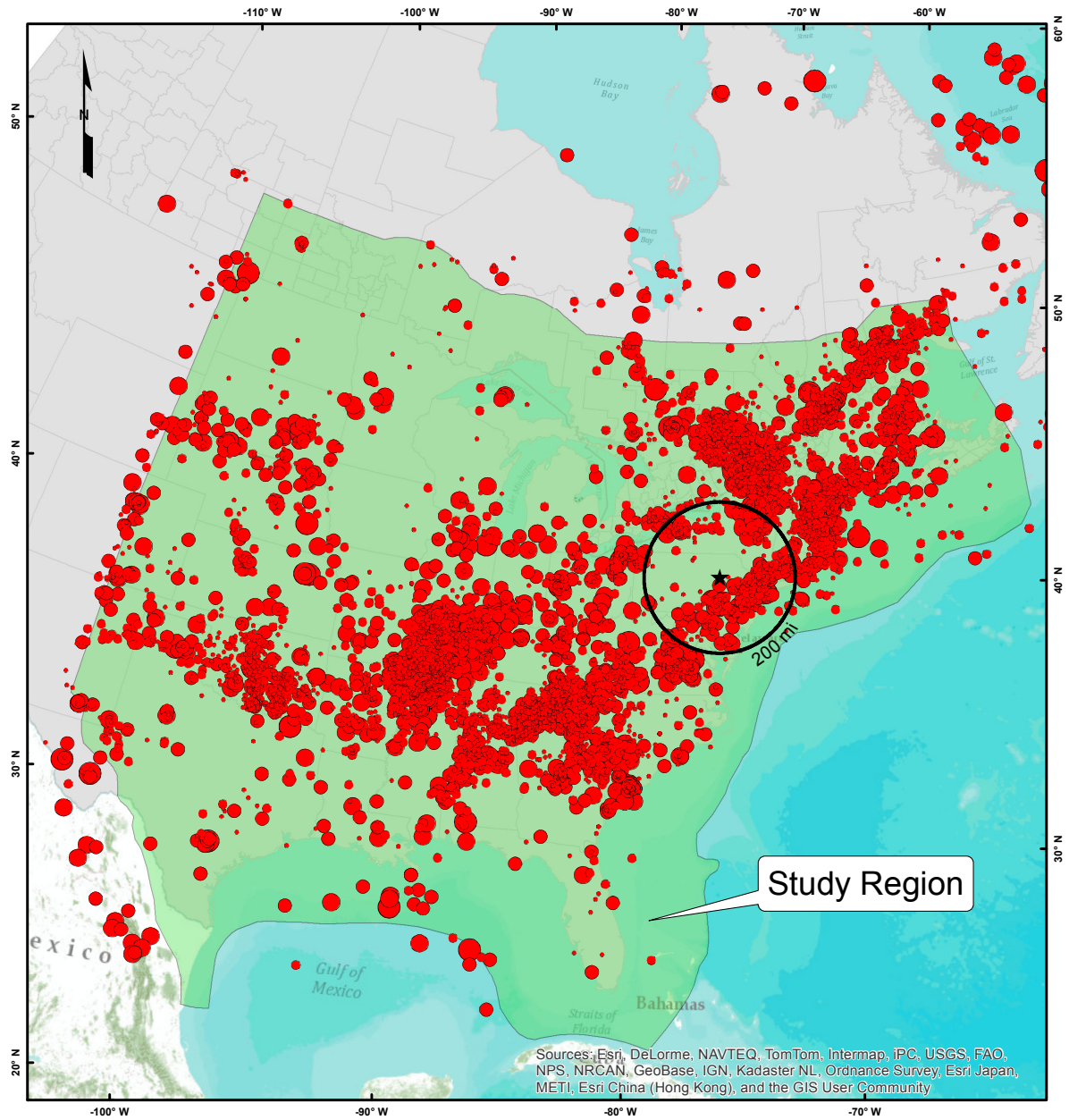1. EPRI/DOE/NRC (2012)

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Figure 2.5-175— {Mmax Zones SSC Approach, Configuration-I: Study Region}

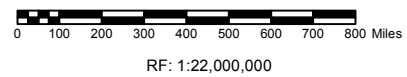**Legend**

★ Bell Bend NPP Site

Study Region

200 Mile Radius

Earthquake Magnitude (E[M])

· 2.2 - 2.7

• 2.8 - 3.1

● 3.2 - 3.8

● 3.9 - 4.8

● >=4.9

Reference(s):
1. EPRI/DOE/NRC (2012)

Coordinate System: NAD 1983 UTM Zone 18N
Projection: Transverse Mercator
Datum: North American 1983

0 100 200 300 400 500 600 700 800 Miles

RF: 1:22,000,000

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Figure 2.5-176— {Mmax Zones SSC Approach, Configuration-II: MESE-W and NMESE-W}

Legend

★ Bell Bend NPP Site

▭ 200 Mile Radius

▨ Mesozoic-and-Younger Extension (wide) (MESE-W)

▨ Non-Mesozoic-and-Younger Extension (wide) (NMESE-W)

Coordinate System: NAD 1983 UTM Zone 18N
Projection: Transverse Mercator
Datum: North American 1983

Earthquake Magnitude (E[M])

·   2.2 - 2.7

•   2.8 - 3.1

●   3.2 - 3.8

●   3.9 - 4.8

●   >=4.9

Reference(s):
1. EPRI/DOE/NRC (2012)

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