



Marcellus Shale in West Virginia

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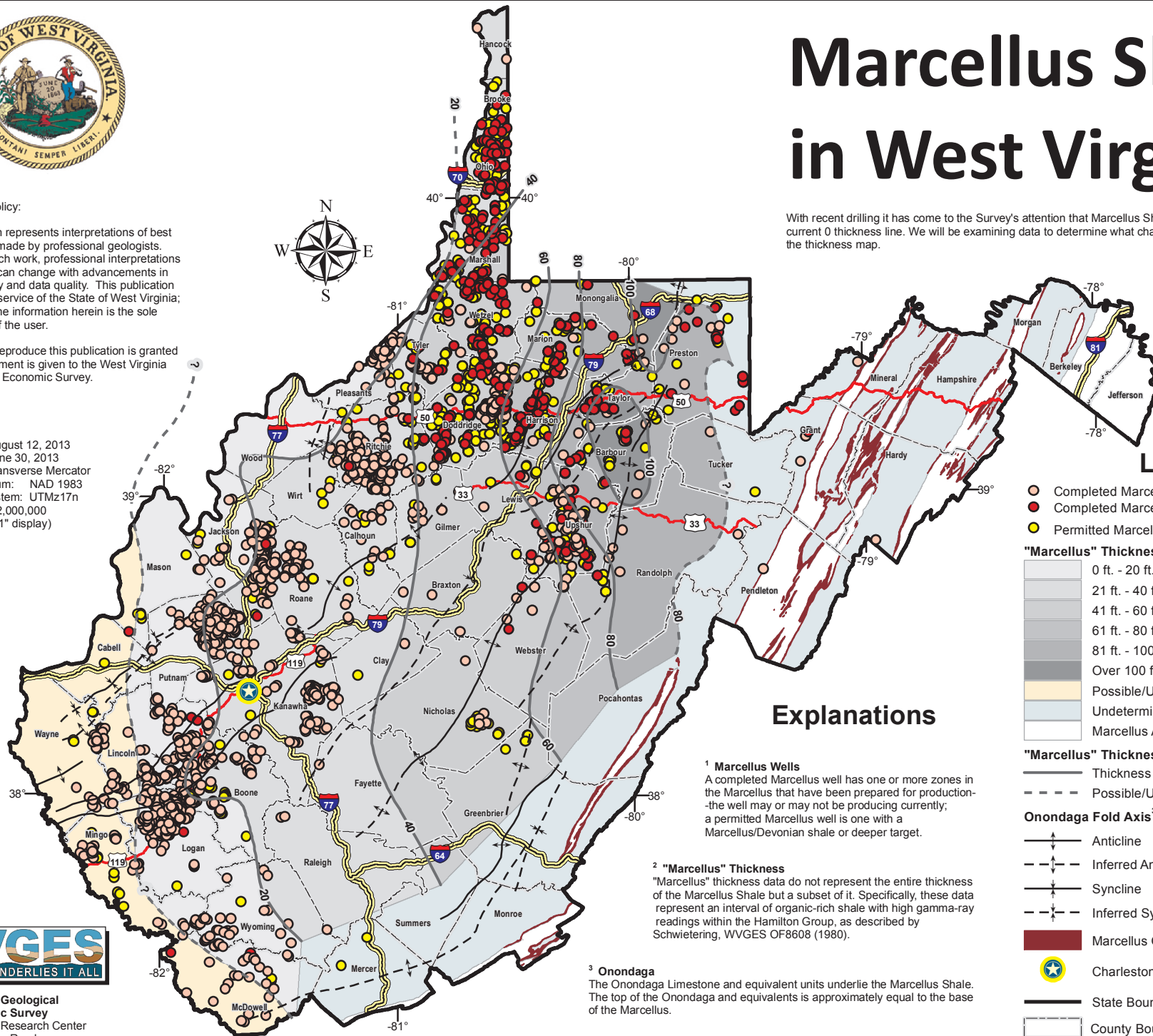
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Map Date: August 12, 2013
 Data Date: June 30, 2013
 Projection: Transverse Mercator
 Horizontal Datum: NAD 1983
 Coordinate System: UTMz17n
 Map Scale: 1:2,000,000
 (for full 8.5" x 11" display)



With recent drilling it has come to the Survey's attention that Marcellus Shale may exist west of the current 0 thickness line. We will be examining data to determine what changes may be needed to the thickness map.



Legend

- Completed Marcellus Vertical Wells¹
- Completed Marcellus Deviated Wells¹
- Permitted Marcellus Wells¹

"Marcellus" Thickness (Isopach)²

- 0 ft. - 20 ft.
- 21 ft. - 40 ft.
- 41 ft. - 60 ft.
- 61 ft. - 80 ft.
- 81 ft. - 100 ft.
- Over 100 ft.
- Possible/Uncertain Marcellus
- Undetermined Thickness
- Marcellus Assumed to be Absent

"Marcellus" Thickness (Isopach) Contours²

- Thickness Contour (20 ft.)
- Possible/Uncertain Marcellus Shale Present

Onondaga Fold Axis³

- Anticline
- Inferred Anticline
- Syncline
- Inferred Syncline

- Marcellus Outcrop

- ★ Charleston, WV

- State Boundary
- County Boundaries
- Interstate Highways
- U.S. Highways

Explanations

¹ Marcellus Wells

A completed Marcellus well has one or more zones in the Marcellus that have been prepared for production—the well may or may not be producing currently; a permitted Marcellus well is one with a Marcellus/Devonian shale or deeper target.

² "Marcellus" Thickness

"Marcellus" thickness data do not represent the entire thickness of the Marcellus Shale but a subset of it. Specifically, these data represent an interval of organic-rich shale with high gamma-ray readings within the Hamilton Group, as described by Schwietering, WVGES OF8608 (1980).

³ Onondaga

The Onondaga Limestone and equivalent units underlie the Marcellus Shale. The top of the Onondaga and equivalents is approximately equal to the base of the Marcellus.



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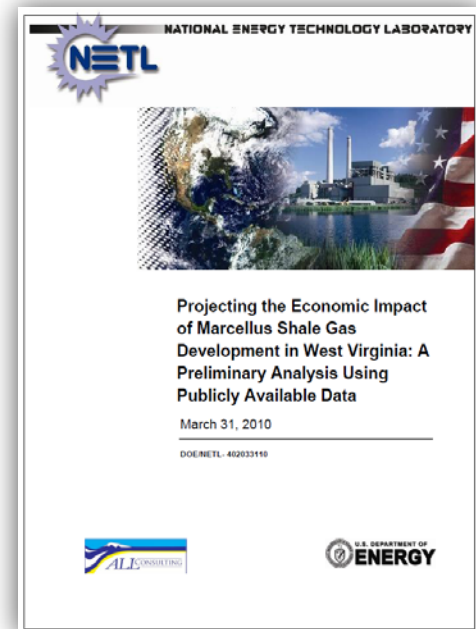
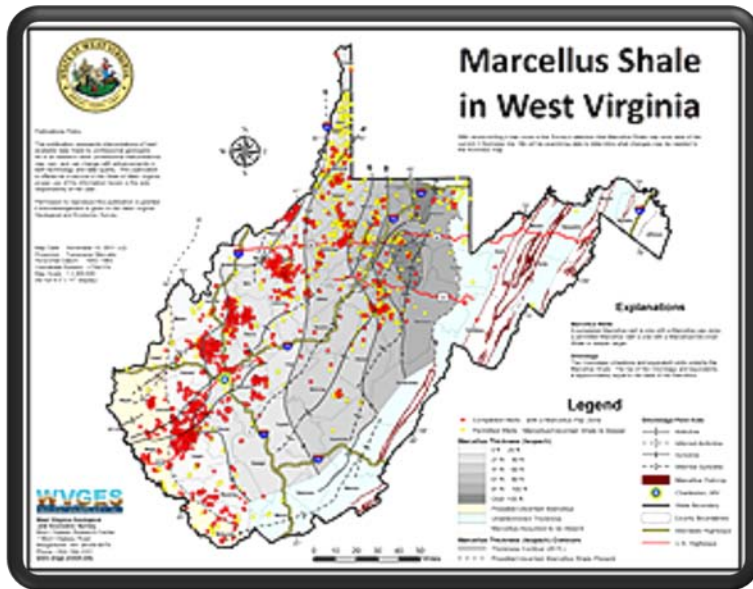
Marcellus Shale Gas in West Virginia

Selected References

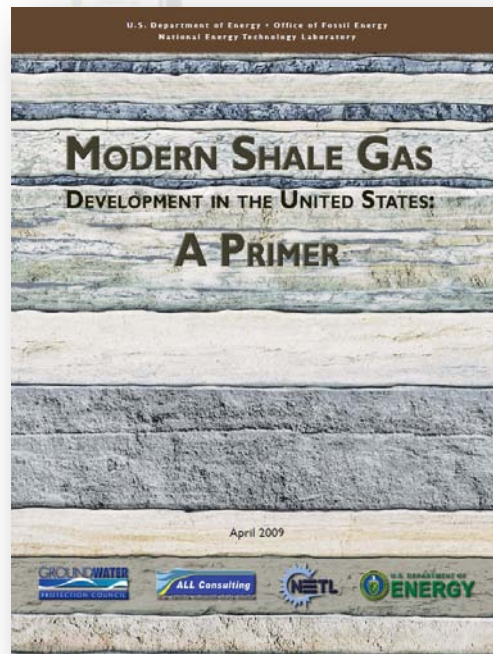
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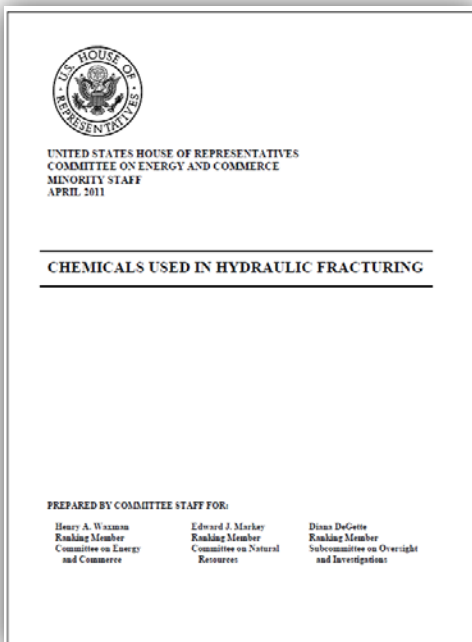
Marcellus Page: <http://www.wvgs.wvnet.edu/www/datastat/devshales.htm>



<http://www.netl.doe.gov/energy-analyses/pubs/WVMarcellusEconomics3.pdf>



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