



Department of the Environment



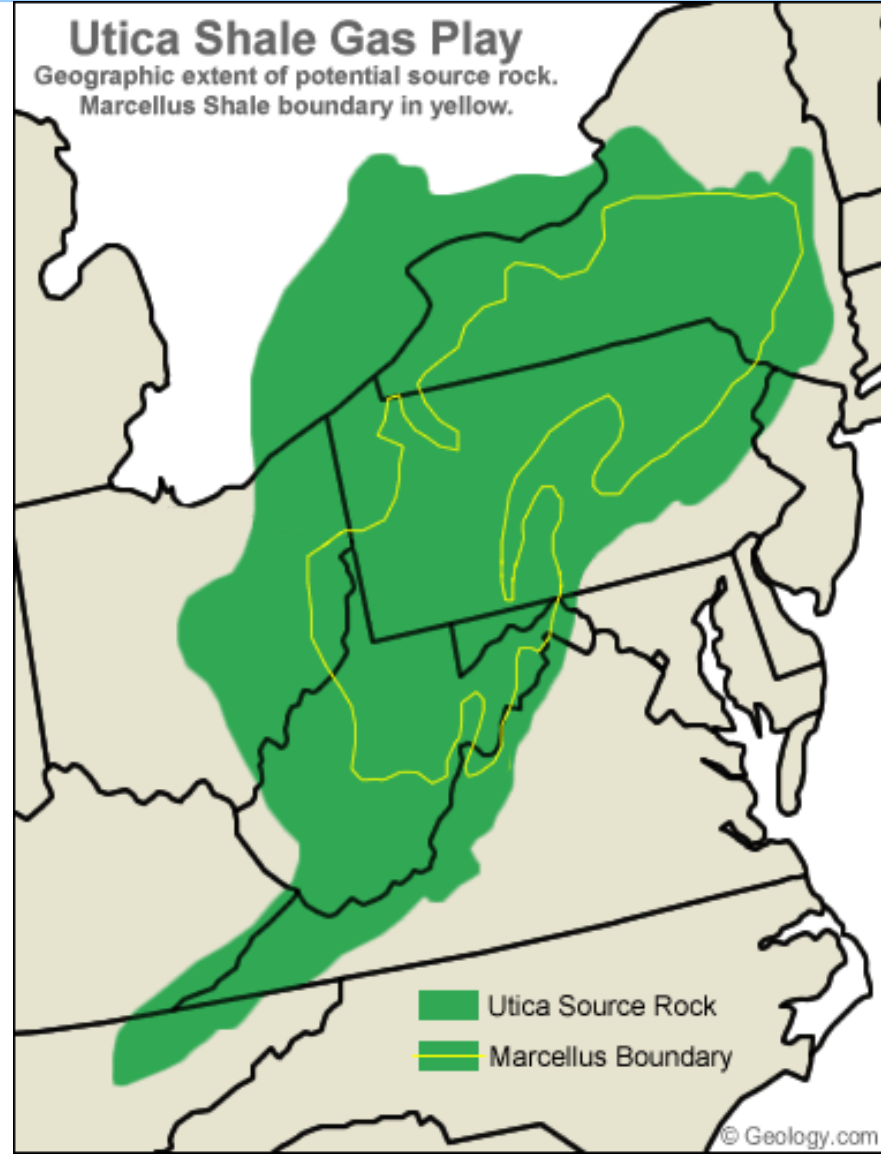
Maryland's Marcellus Shale Safe Drilling Initiative

**Friends of Deep Creek Lake Forum
August 11, 2012
Brigid Kenney, Sr. Policy Advisor
MD Department of the Environment**



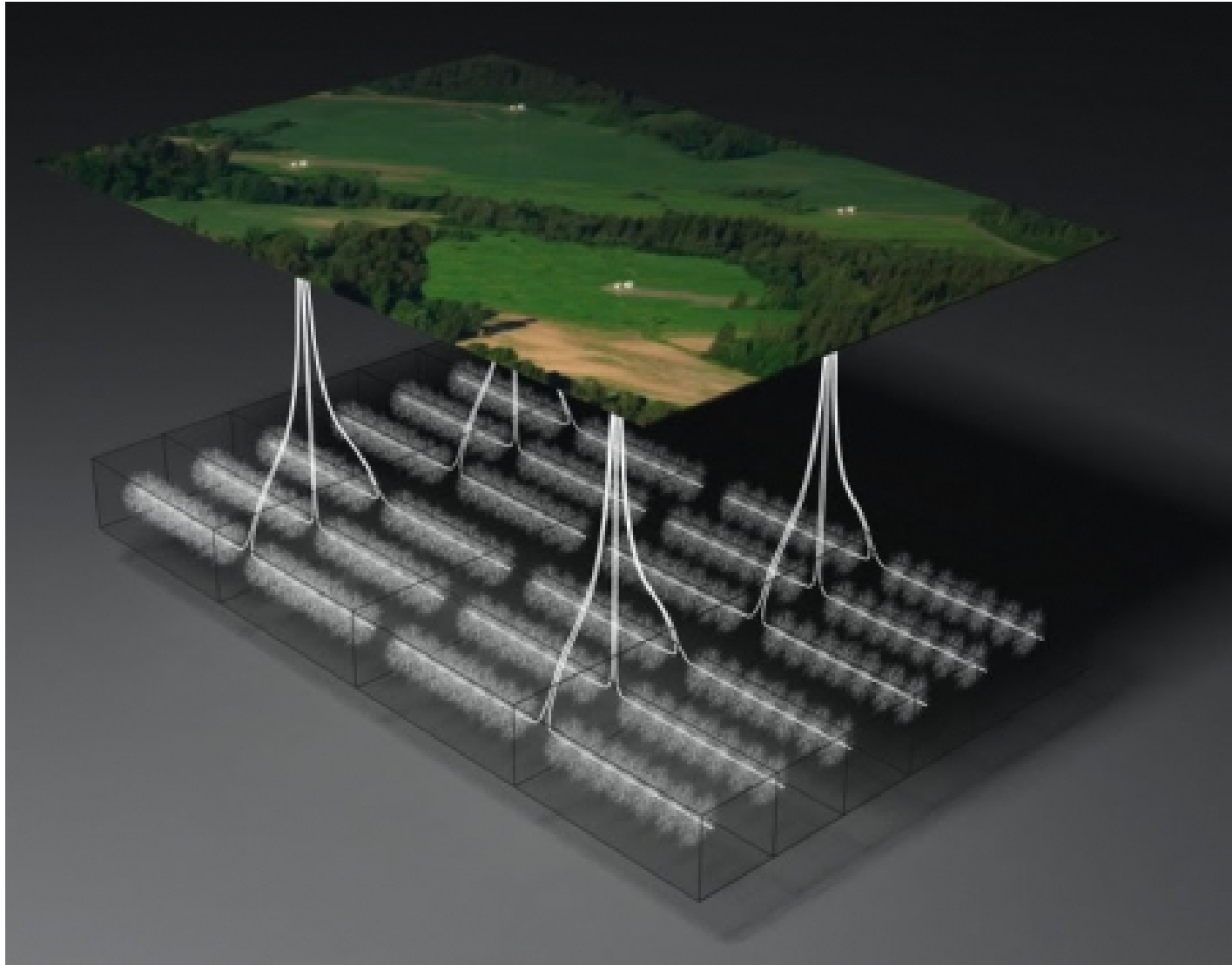
The Marcellus Shale

- Found throughout the Allegheny Plateau region of the northern Appalachian Basin
- In Maryland, it is found in Garrett County and part of Allegany County
- Recovering gas from the Marcellus became economically feasible
 - Advances in horizontal drilling and hydraulic fracturing
 - Higher wellhead prices for gas, but prices have fallen





Conceptual Development Plan





Artist's Drawing of Landscape

Source, Chief Oil & Gas, LLC website





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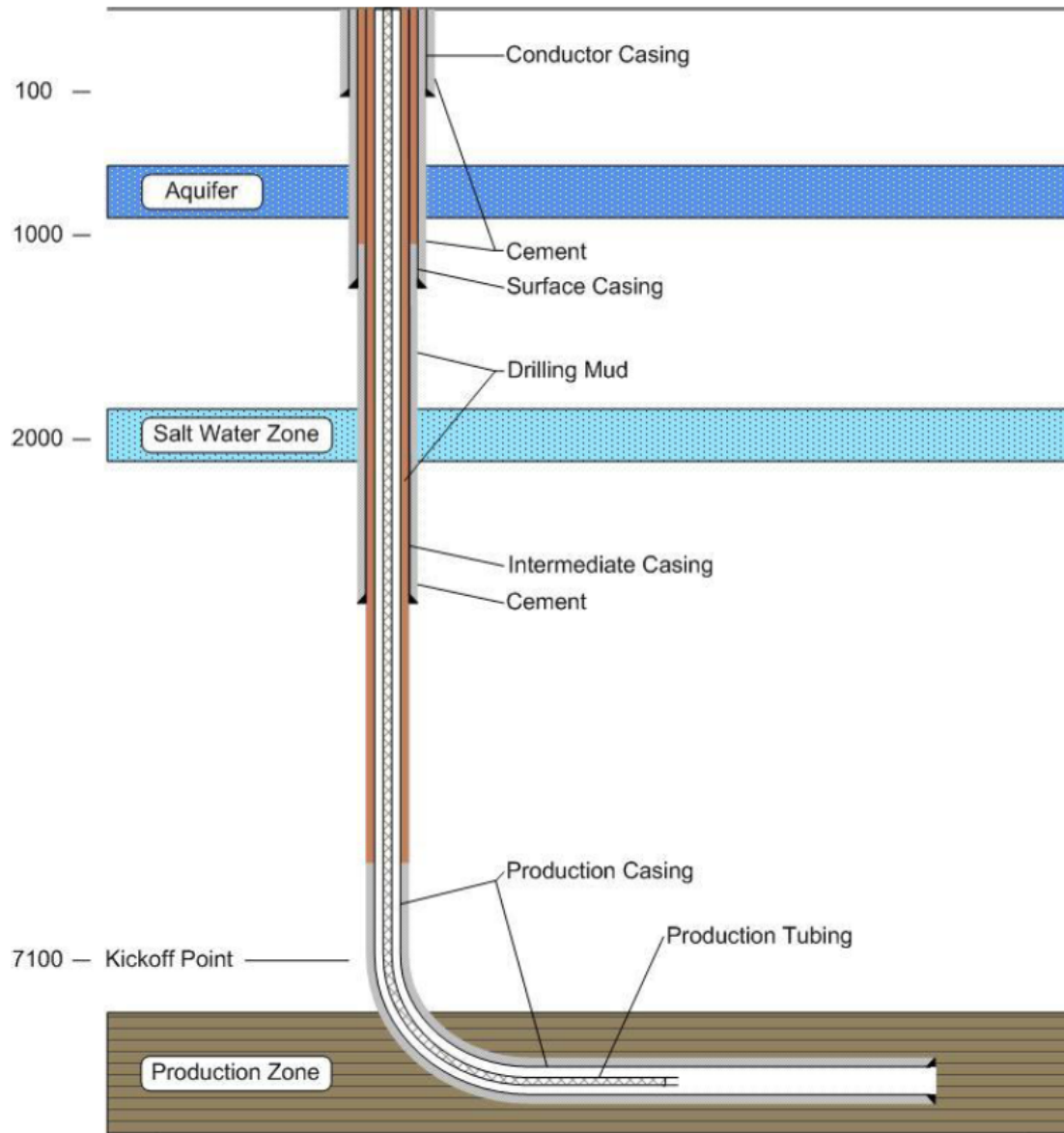


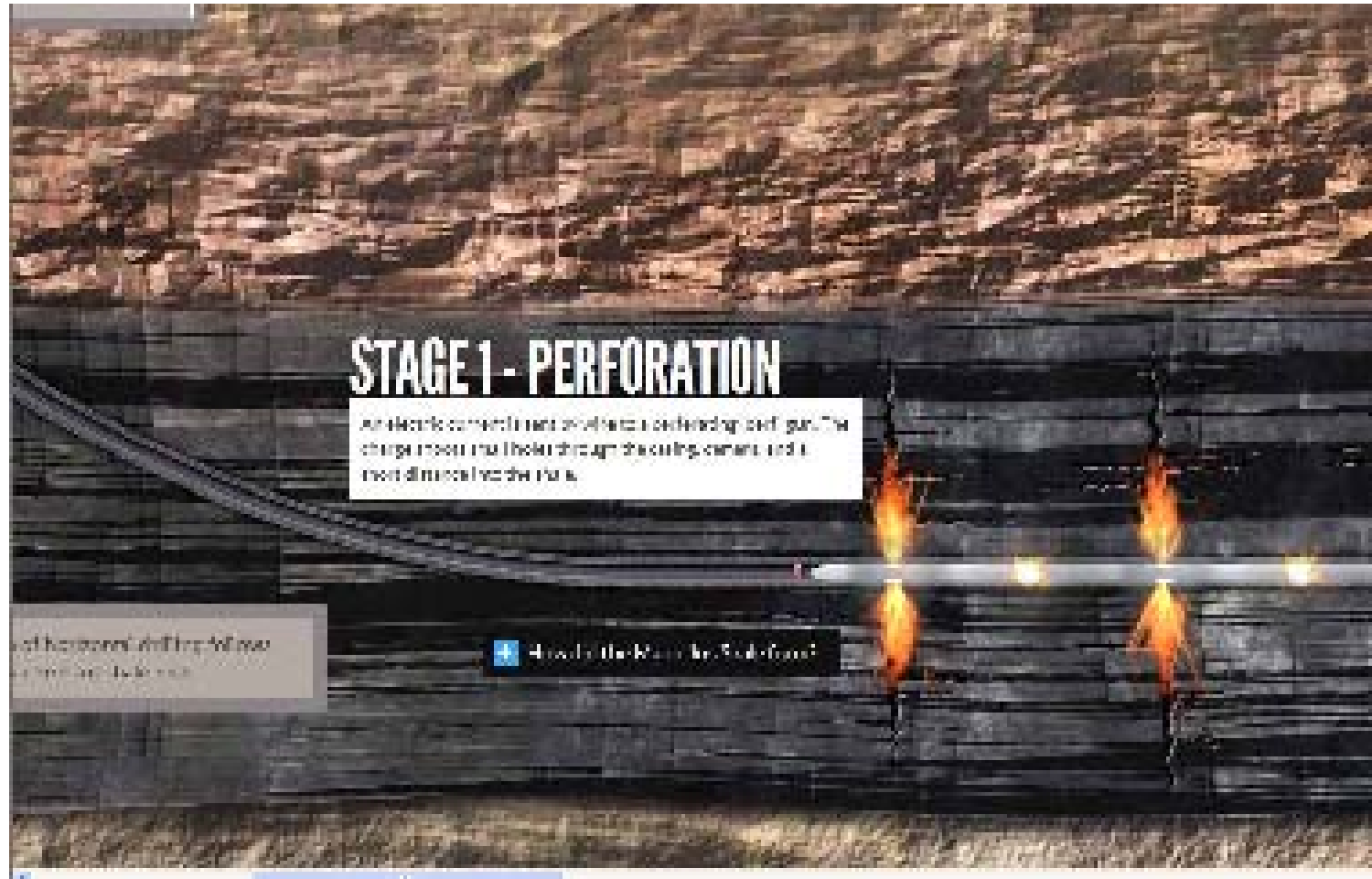
Actual Landscape



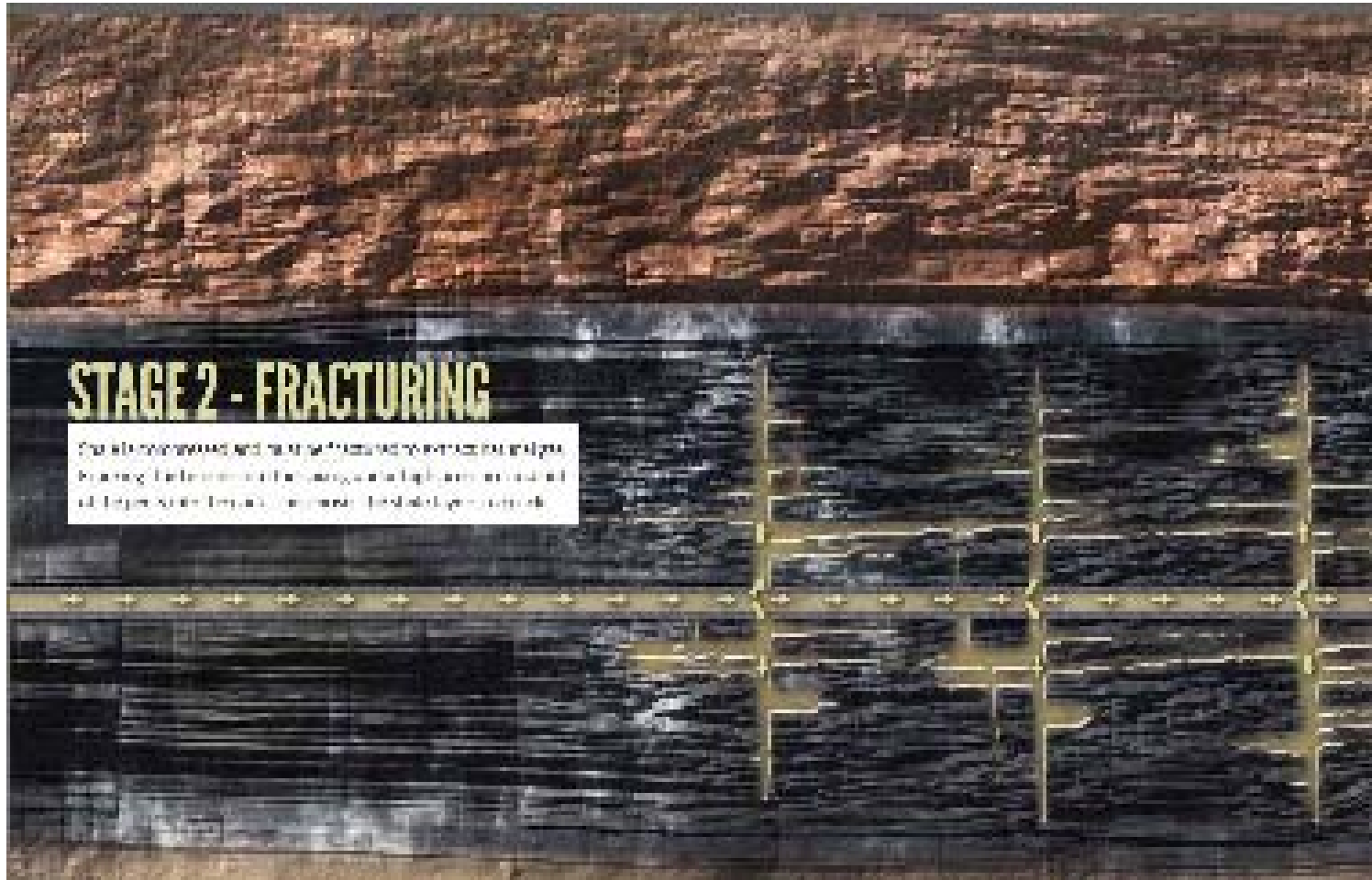
Typical Well

EXHIBIT 30: CASING ZONES AND CEMENT PROGRAMS

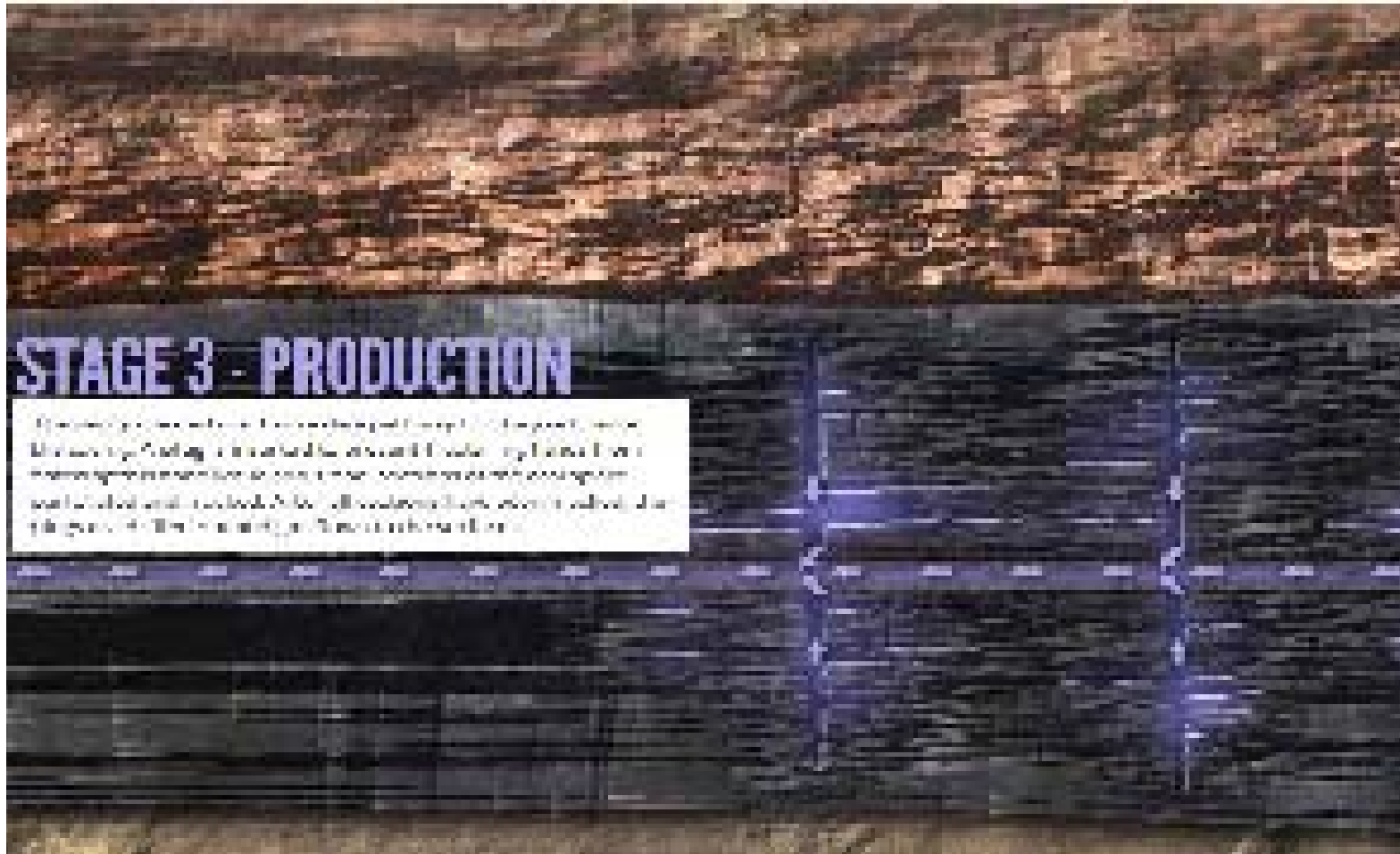




From <http://stateimpact.npr.org/pennsylvania/tag/fracking/>



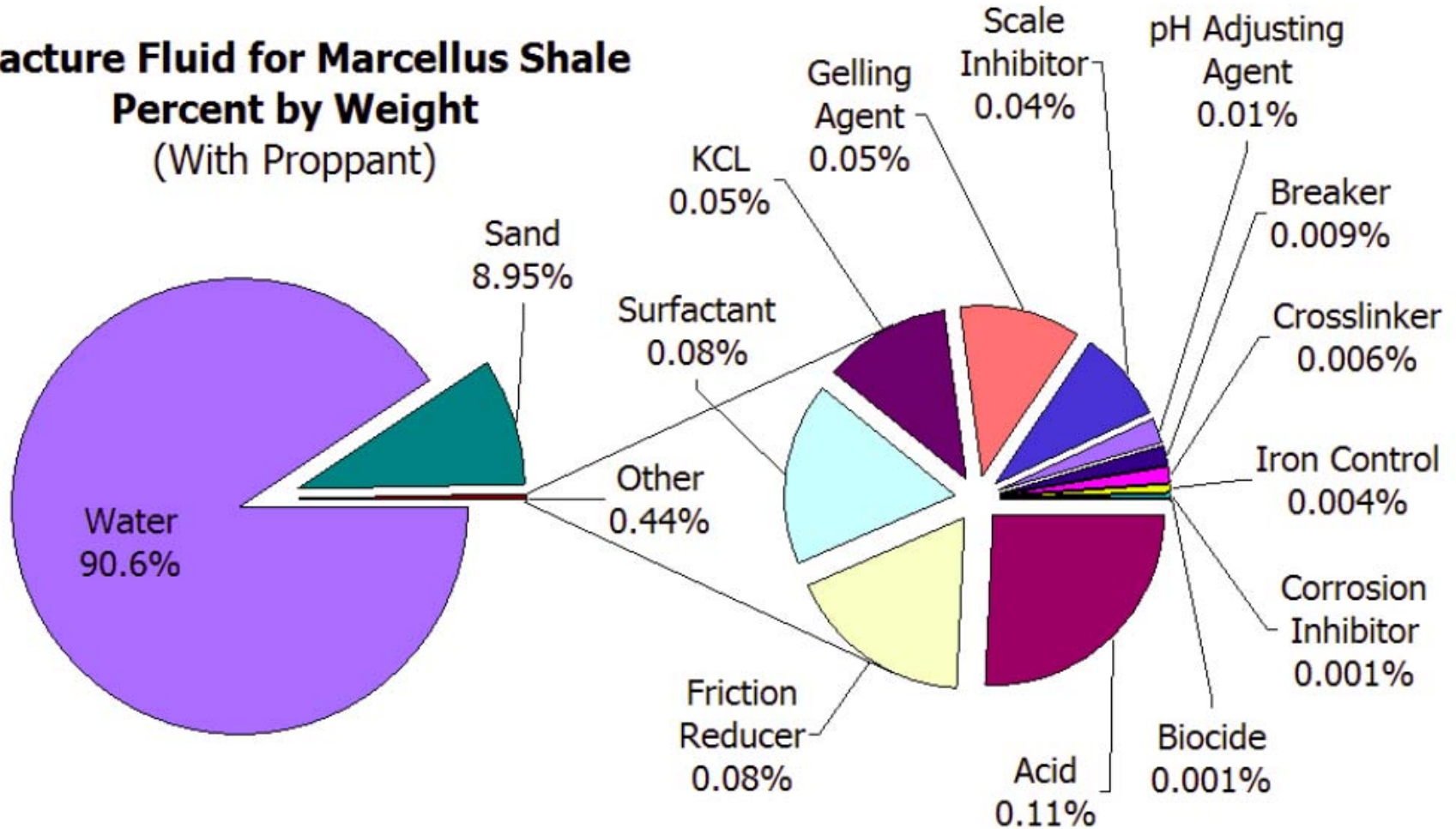
From <http://stateimpact.npr.org/pennsylvania/tag/fracking/>



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“Typical” Fracing Fluid

Fracture Fluid for Marcellus Shale
Percent by Weight
 (With Proppant)





Opportunities and Challenges

- Opportunities
 - Improved energy security/Trade balance
 - Lower greenhouse gas emissions from production of electricity
 - Economic development in Garrett and Allegany Counties
- Challenges
 - Operations pose a potential risk of harm to public health and safety and the environment
 - Community and Social Impacts





MDE Gas Well Permit

- A permit is required before the drilling of any gas well
- MDE has broad statutory authority to impose reasonable and appropriate permit conditions to protect public safety and the State's natural resources
- Regulations establish application requirements and the criteria for constructing and operating gas wells
 - Have not been amended since 1993
 - Not specific to Marcellus Shale, horizontal drilling or high volume hydraulic fracturing





Other Permits May Be Needed

- **State**
 - Water Appropriation permit
 - Air Quality permit for drill and support equipment
 - Wetlands and Waterways permit
- **Local**
 - Planning and zoning requirements
 - Grading
 - Erosion and sediment control





Gov. O'Malley's Executive Order

- June 2011
- Directs MDE and DNR, in consultation with Advisory Commission, to conduct a study and issue reports on:
 - the short-term, long-term and cumulative effects of natural gas exploration in the Marcellus Shale
 - Best practices
 - Appropriate changes, if any, to the laws and regulations concerning oil and gas





Report

- December 31, 2011
 - Revenue and Liability issues
- August 1, ~~2012~~ 2013
 - Best Practices
- August 1, 2014
 - Remaining issues





Thank You

