



National Fuel[®]



Investor Presentation

Analyst Day
September 9, 2011

Marcellus Shale

Water Management Program

➤ Water Sourcing:

- ✓ Coal mine runoff
- ✓ Permitted freshwater sources
- ✓ Recycled water

➤ Water Management:

- ✓ Instituted a “Zero Surface Discharge” policy
- ✓ Recycle Marcellus flowback and produced water
- ✓ Centralized water handing in development areas
 - Tioga County – DCNR 595 and Covington
 - Lycoming County – DCNR 100
 - Elk County - Owl’s Nest
- ✓ Installing new evaporative technology
- ✓ Investigating underground injection



Seneca is committed to protecting the surface from any type of pollution

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“Zero Liquid Discharge Operation”

- **Utilizing a state-of-the-art evaporative technology to ensure no liquid is discharged at the surface**
 - ✓ **Building centrally located units in the Western Development Area (WDA) and the Eastern Development Area (EDA)**
 - ✓ **Removes all liquids from the production stream**
 - ✓ **Has the ability to be powered by the waste heat from a compressor station**
 - ✓ **End products:**
 - ✓ **Non-hazardous solidified salt material**
 - ✓ **Clean water vapor emissions**

