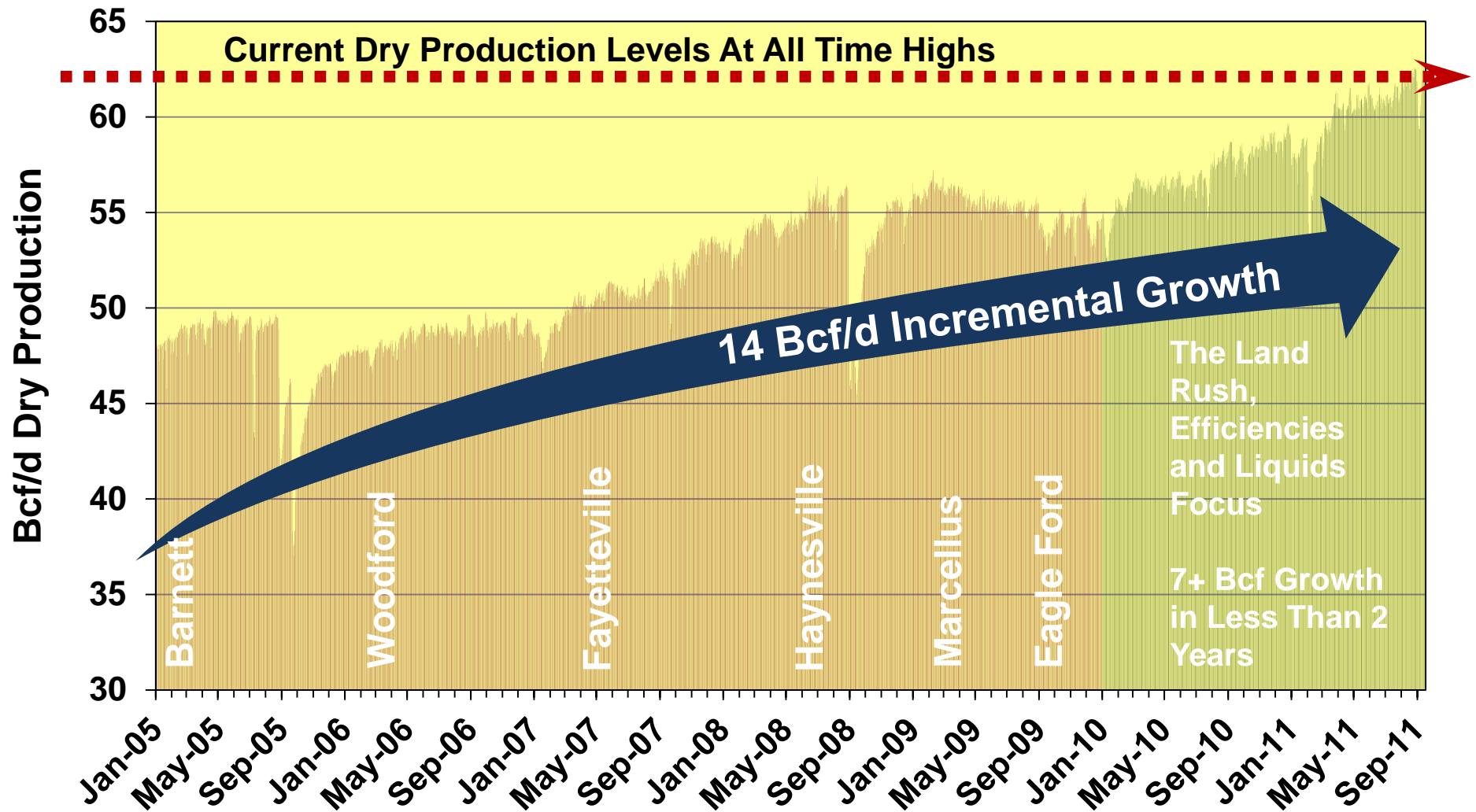


Liquids From Shales

Fertilizer Outlook & Technology Conference

Suzanne Minter
November 16, 2011

Strong Lower 48 Production Growth Since 2005



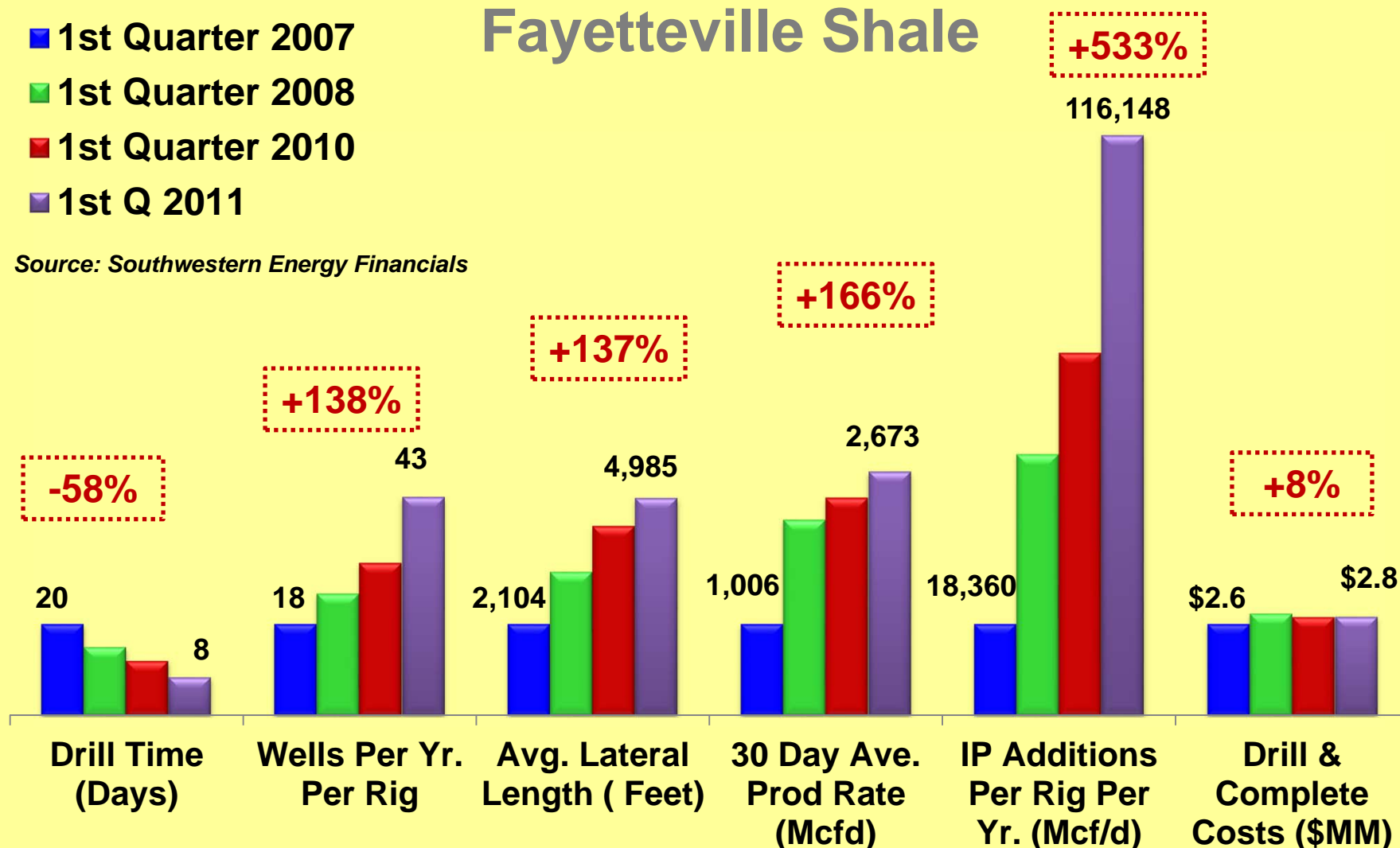
Source: BENTEK Pipeline Flow Data --- Daily Supply and Demand Report: September 23, 2011
Incremental Growth = Avg. Jan. 2005 to Avg. August 2011

Southwestern Energy's Rig Productivity Gains

Fayetteville Shale

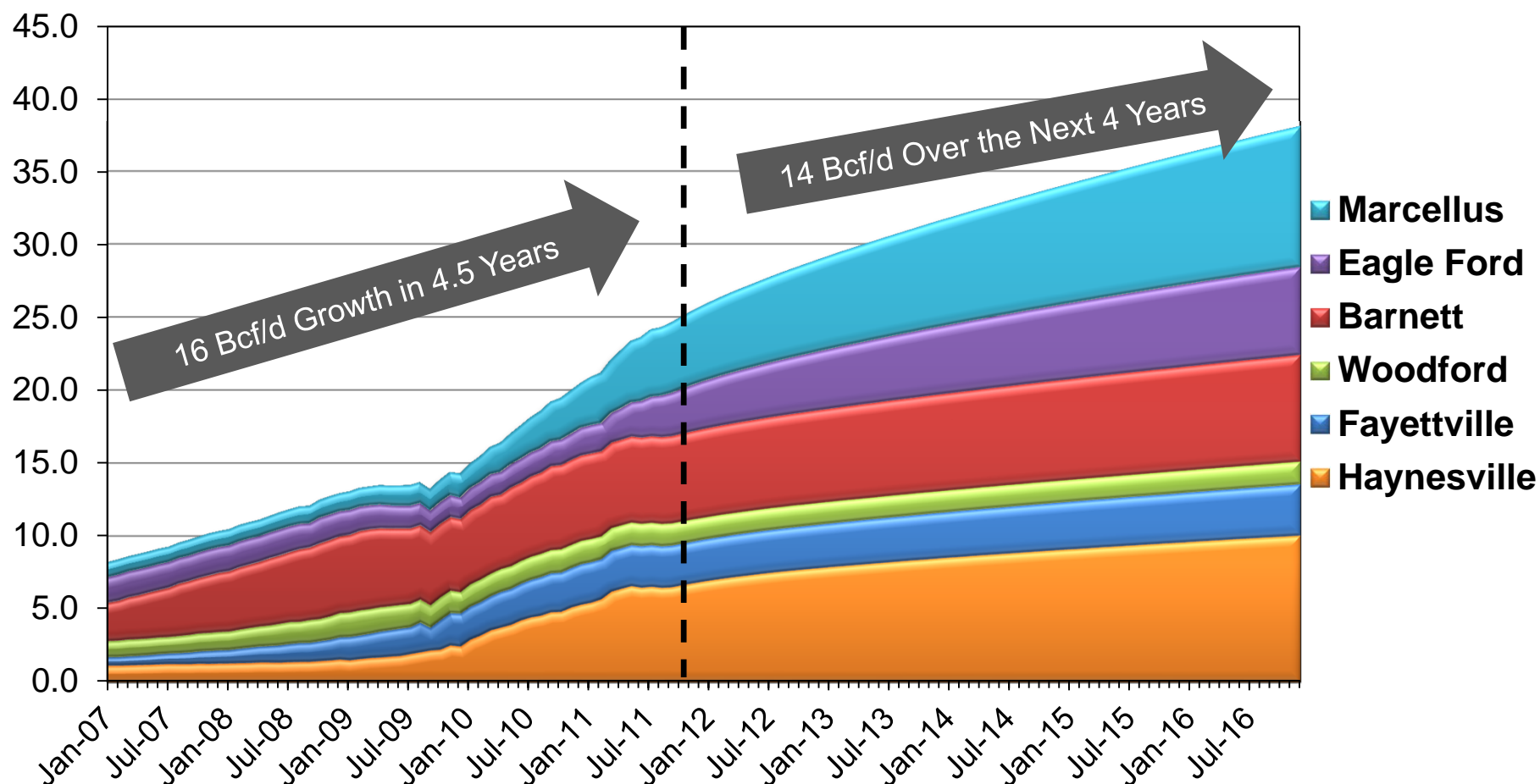
- 1st Quarter 2007
- 1st Quarter 2008
- 1st Quarter 2010
- 1st Q 2011

Source: Southwestern Energy Financials

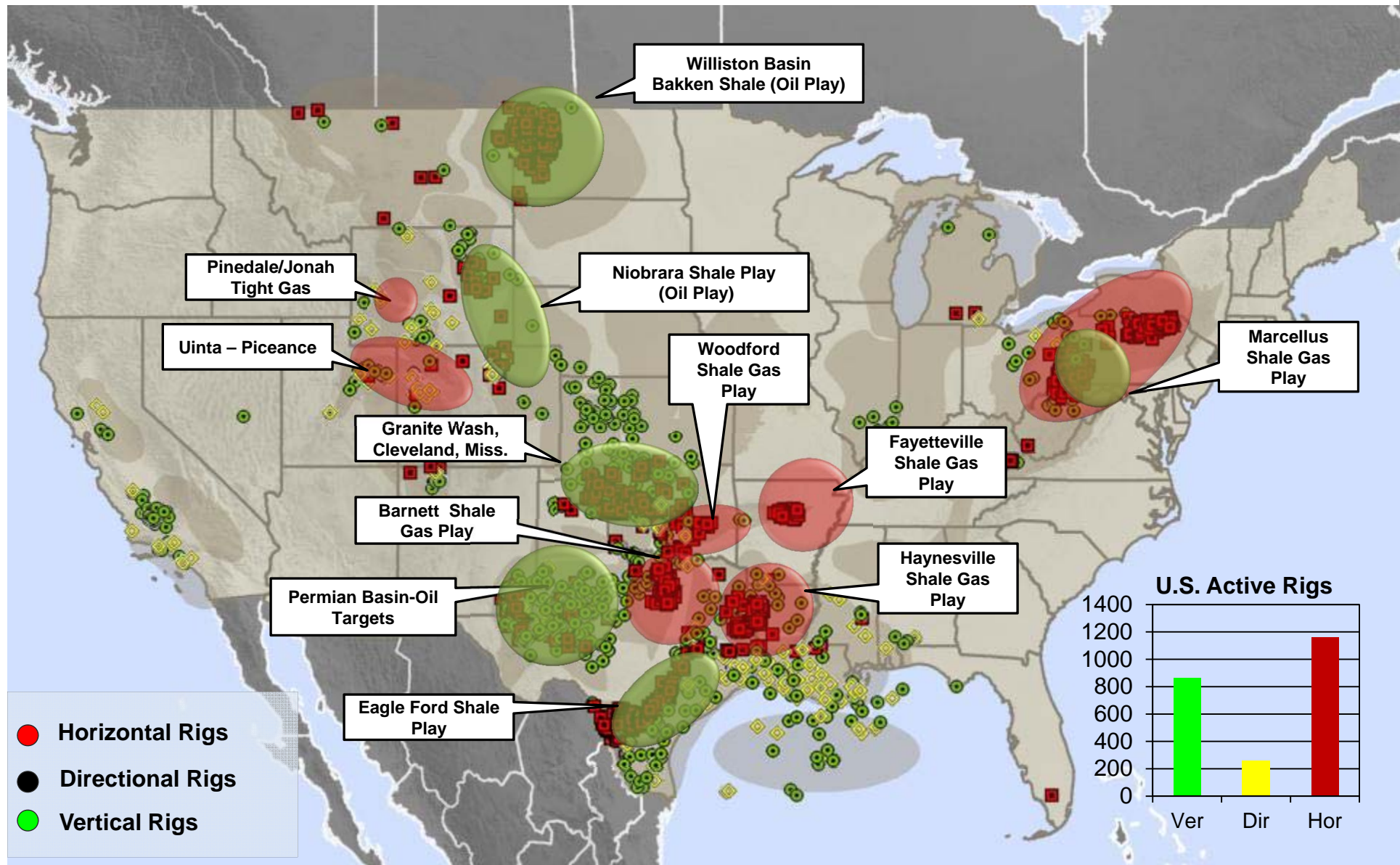


Production Growth Projection

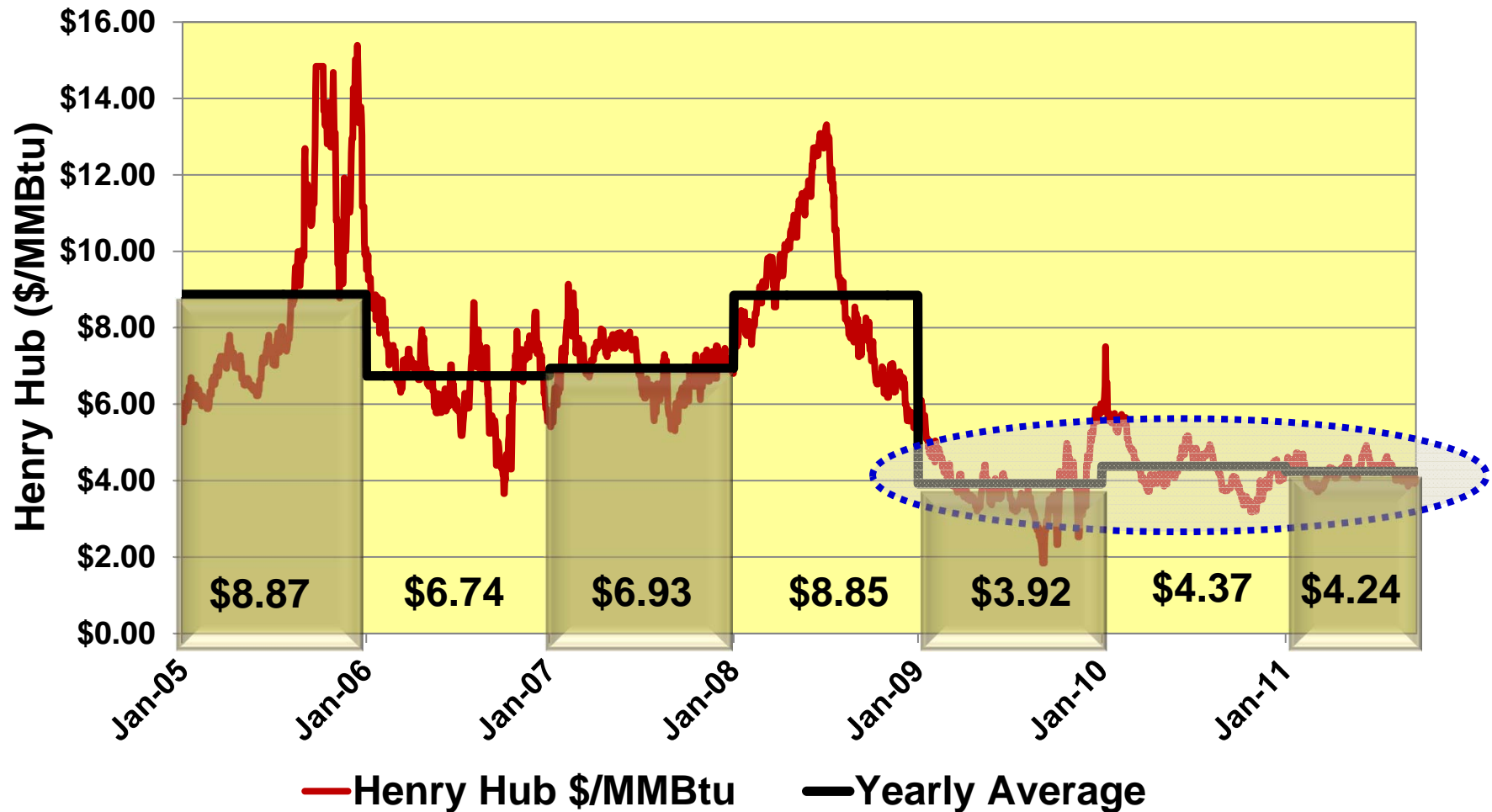
“ Big 6” Unconventional Basin Growth (Bcf/d)



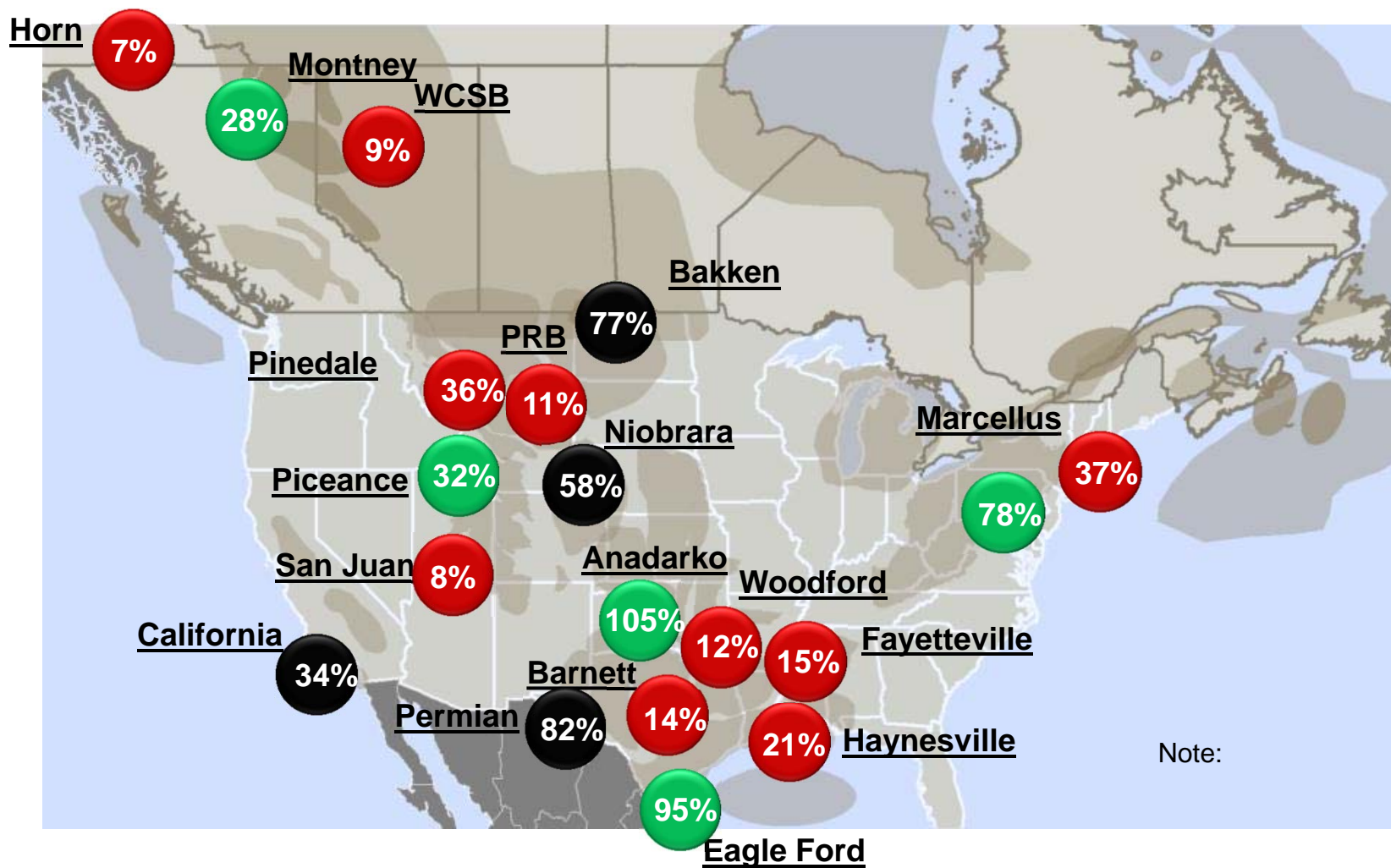
U.S. Active Rig Locations: Resource Plays Dominate



The Shale Revolution Drives Down Prices



Liquids Rich Plays Provide Excellent Returns

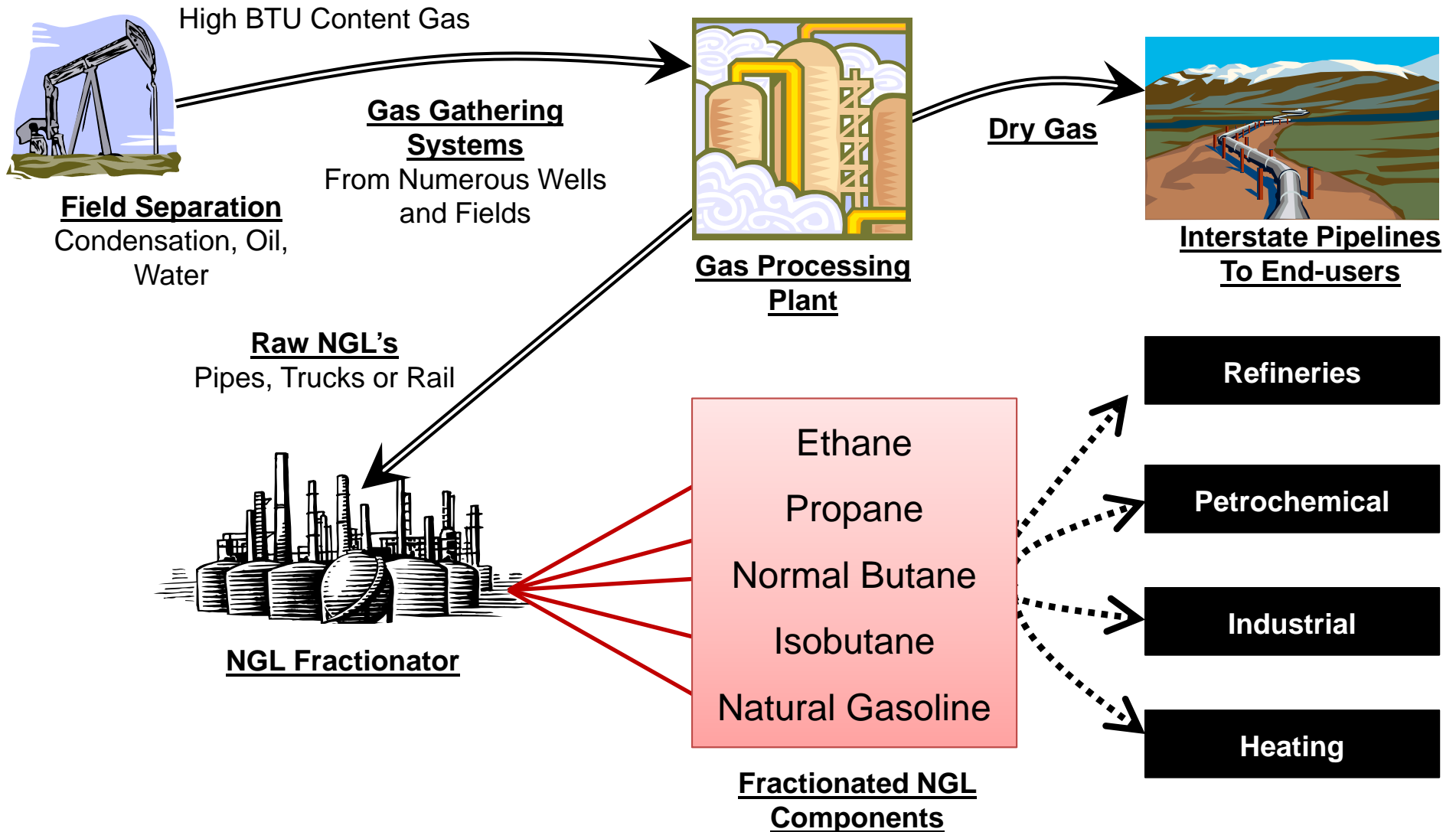


Changing Flow Dynamics

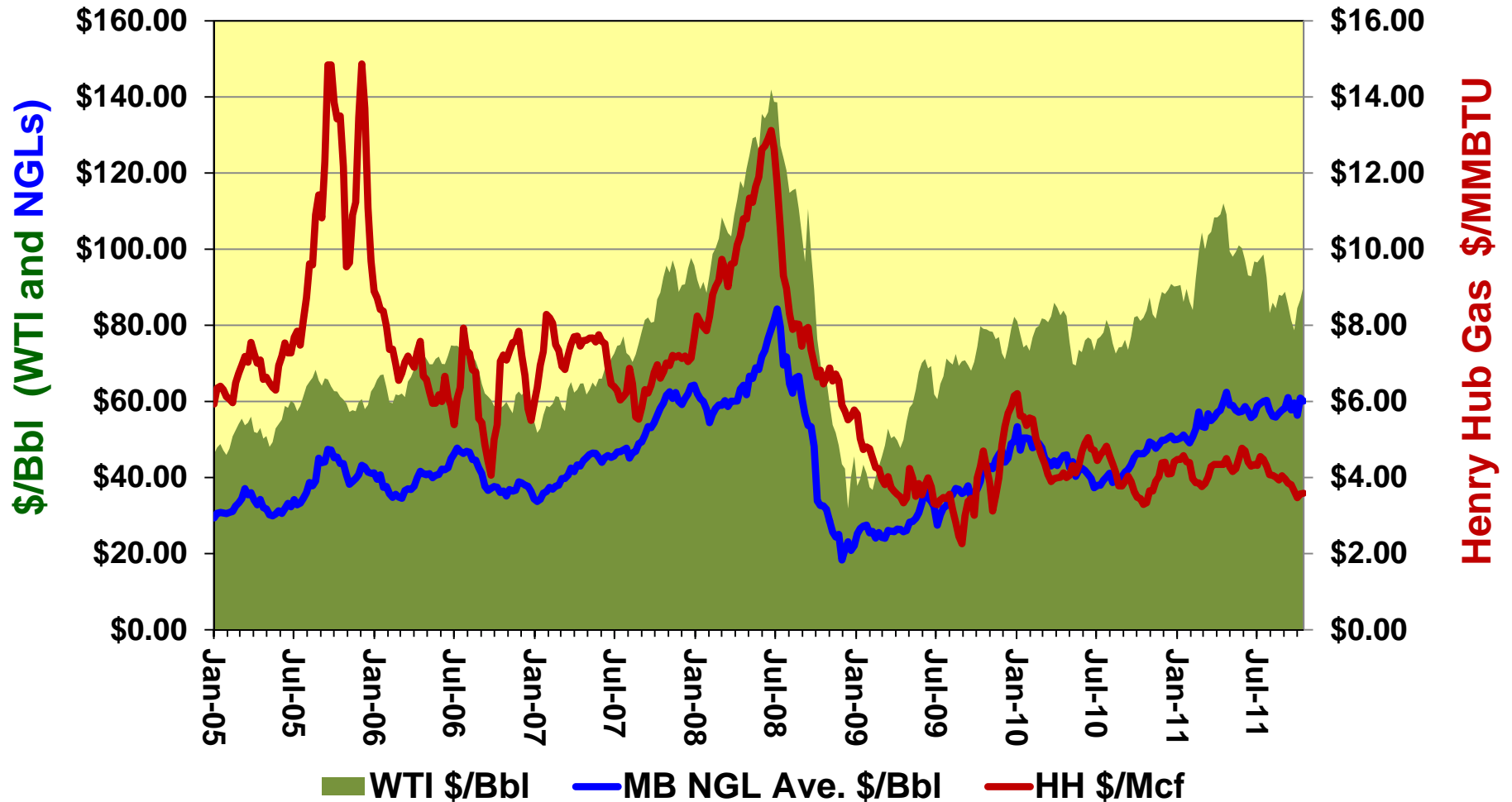
- **Impact of shale technologies has shifted from natural gas, to crude oil and NGLs**
- **We've seen this movie before – constrained flows > basis blow-outs > infrastructure investments**
- **But... parallels go only so far. Supply dynamics, physical properties and markets are completely different**
- **It will take years and billions in midstream investment to return crude oil and NGL markets to equilibrium**



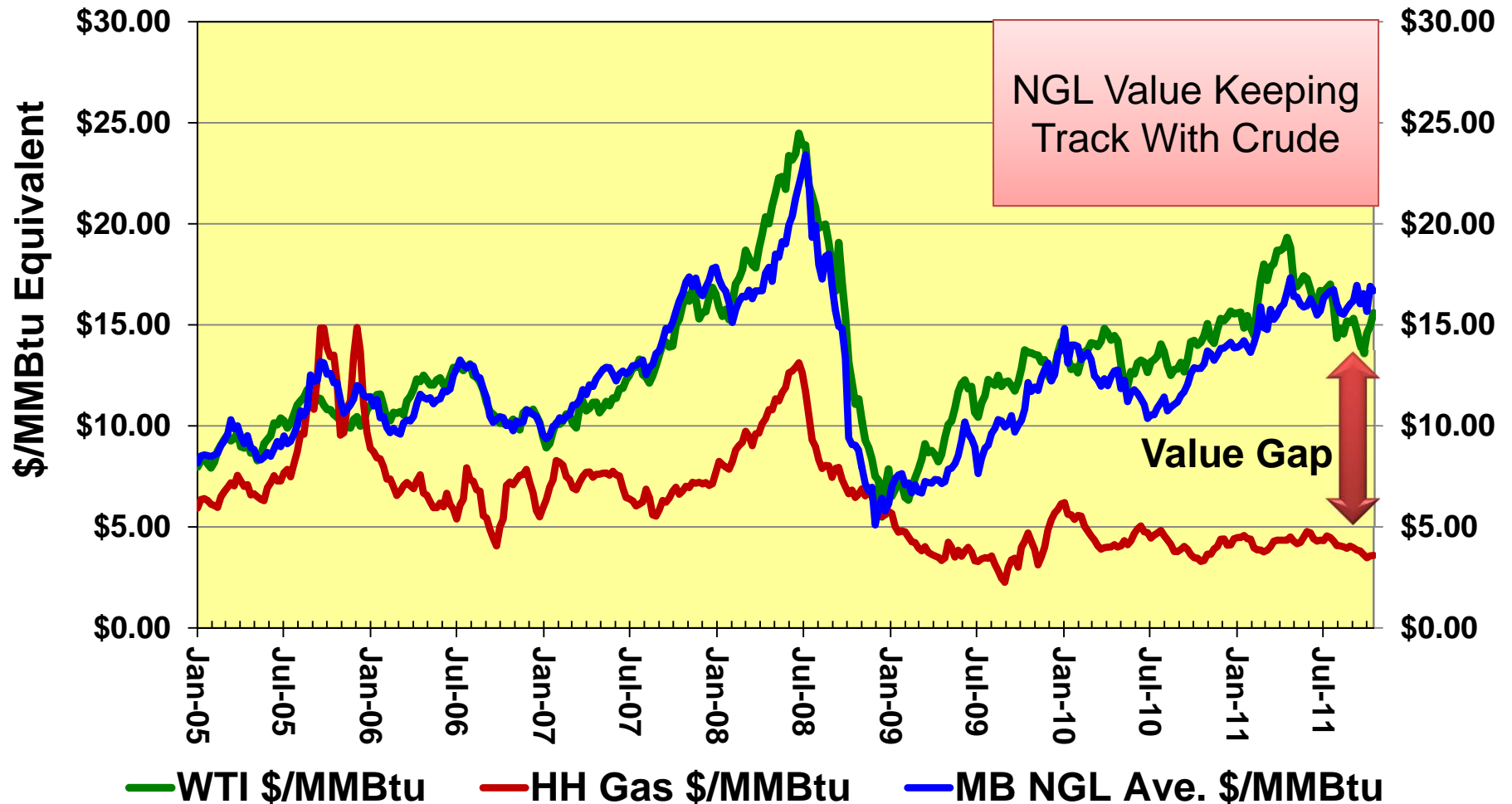
Natural Gas Liquids (NGLs)



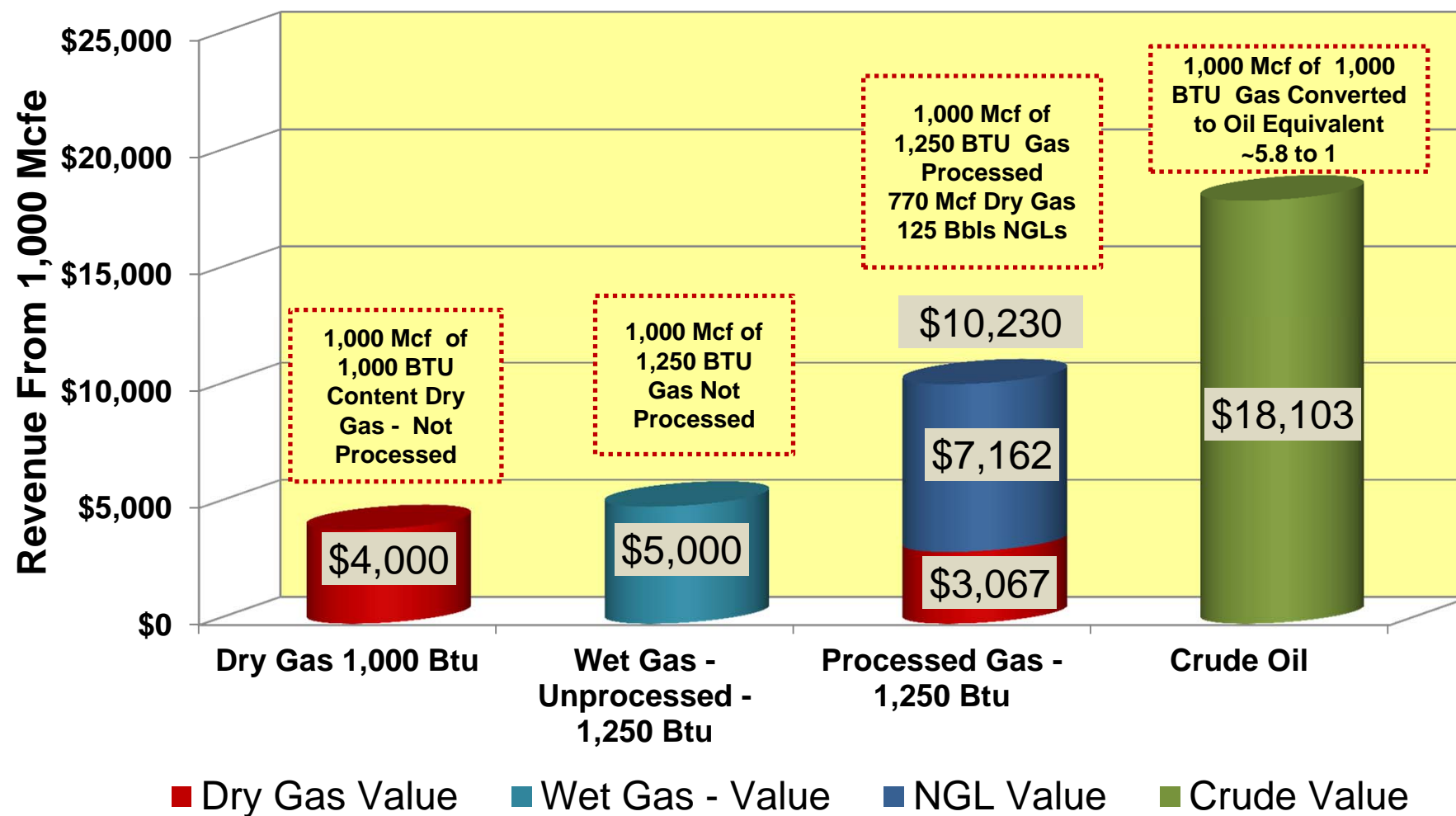
Gas, Oil and NGL Price Comparison



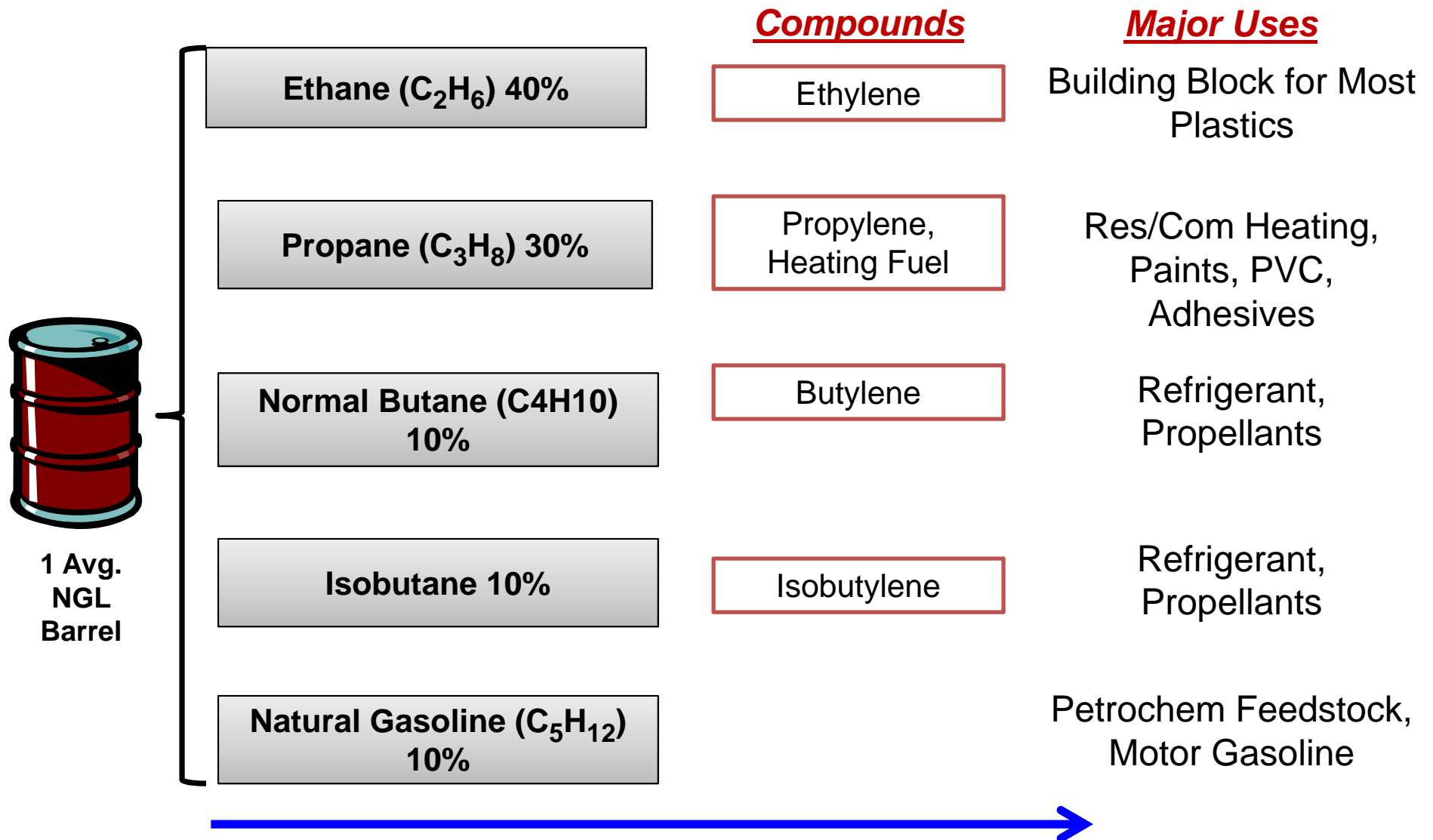
Gas, Oil and NGL Price Comparison: MMBTU Equivalent



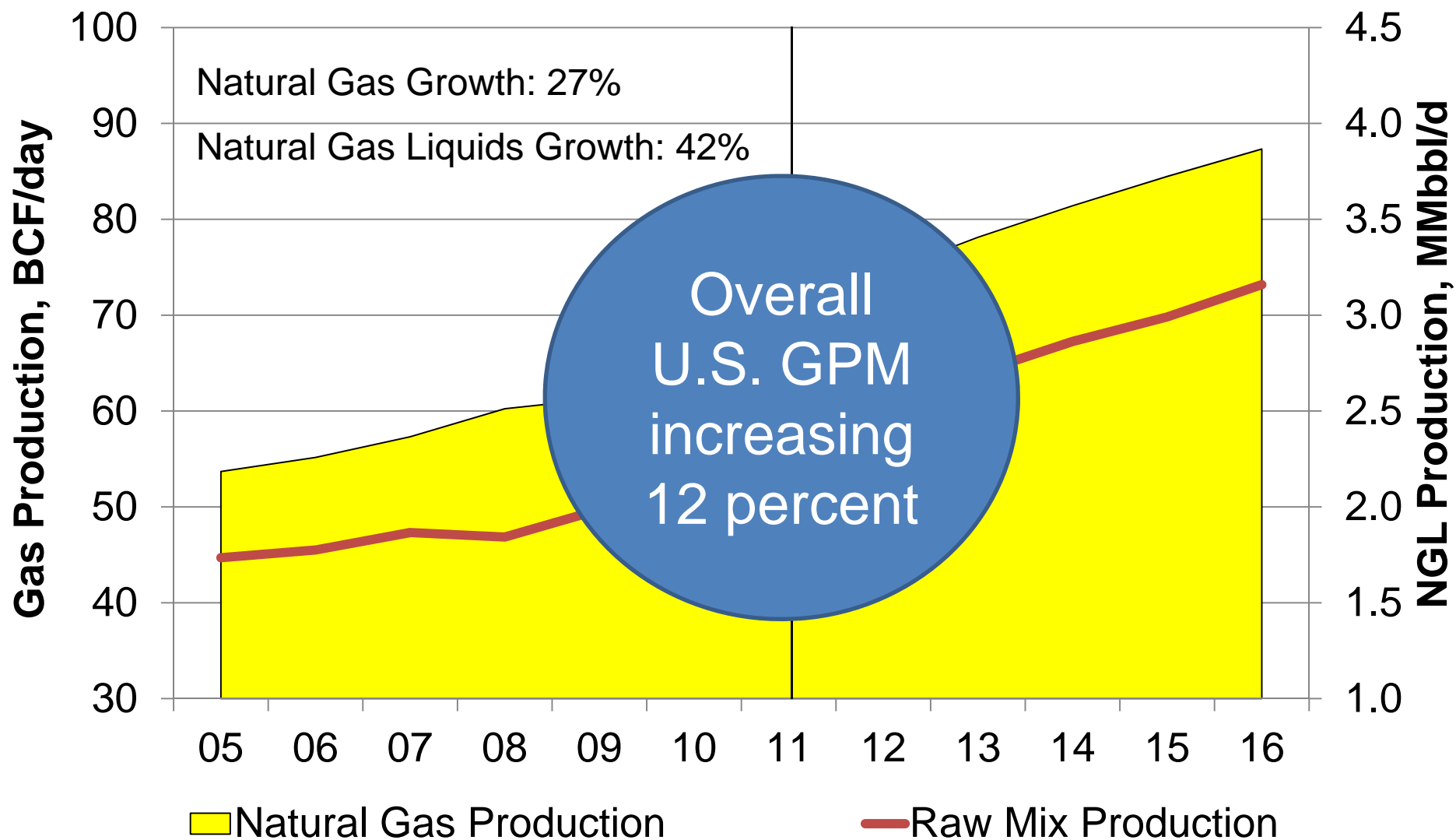
The Move To Crude --- Liquid Uplift \$\$



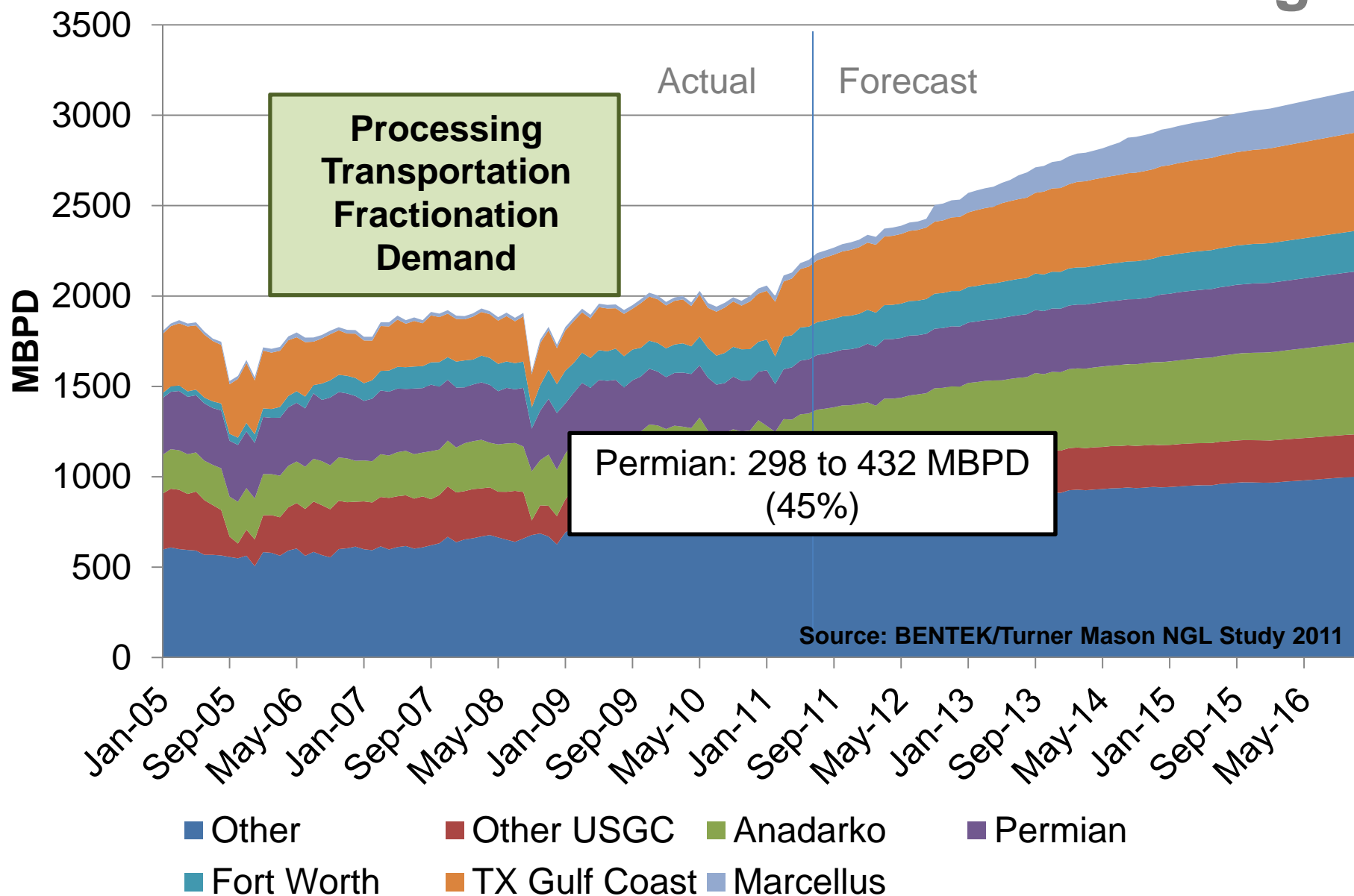
Components of NGL Barrel



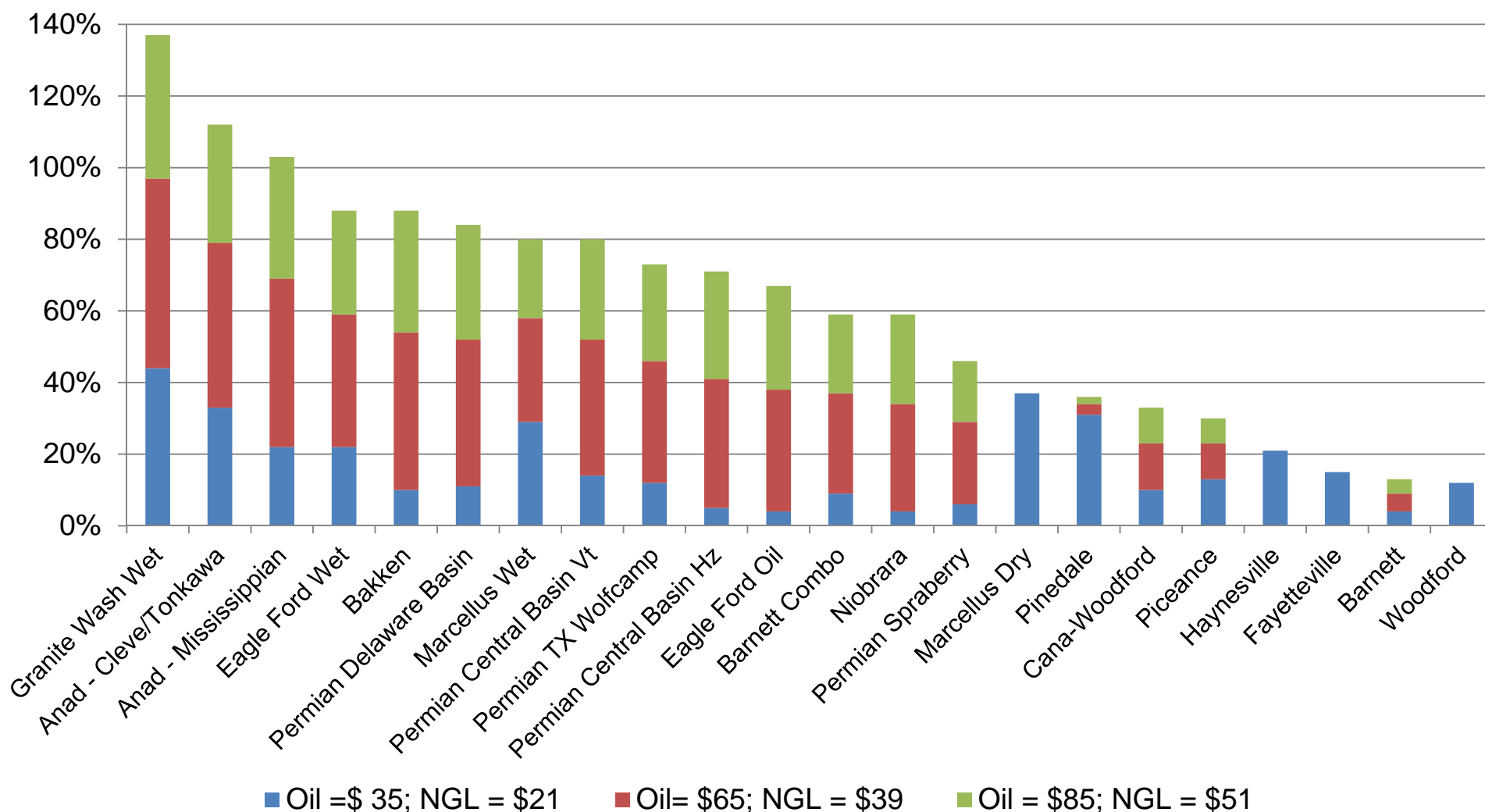
Gas Growth vs. NGL Growth



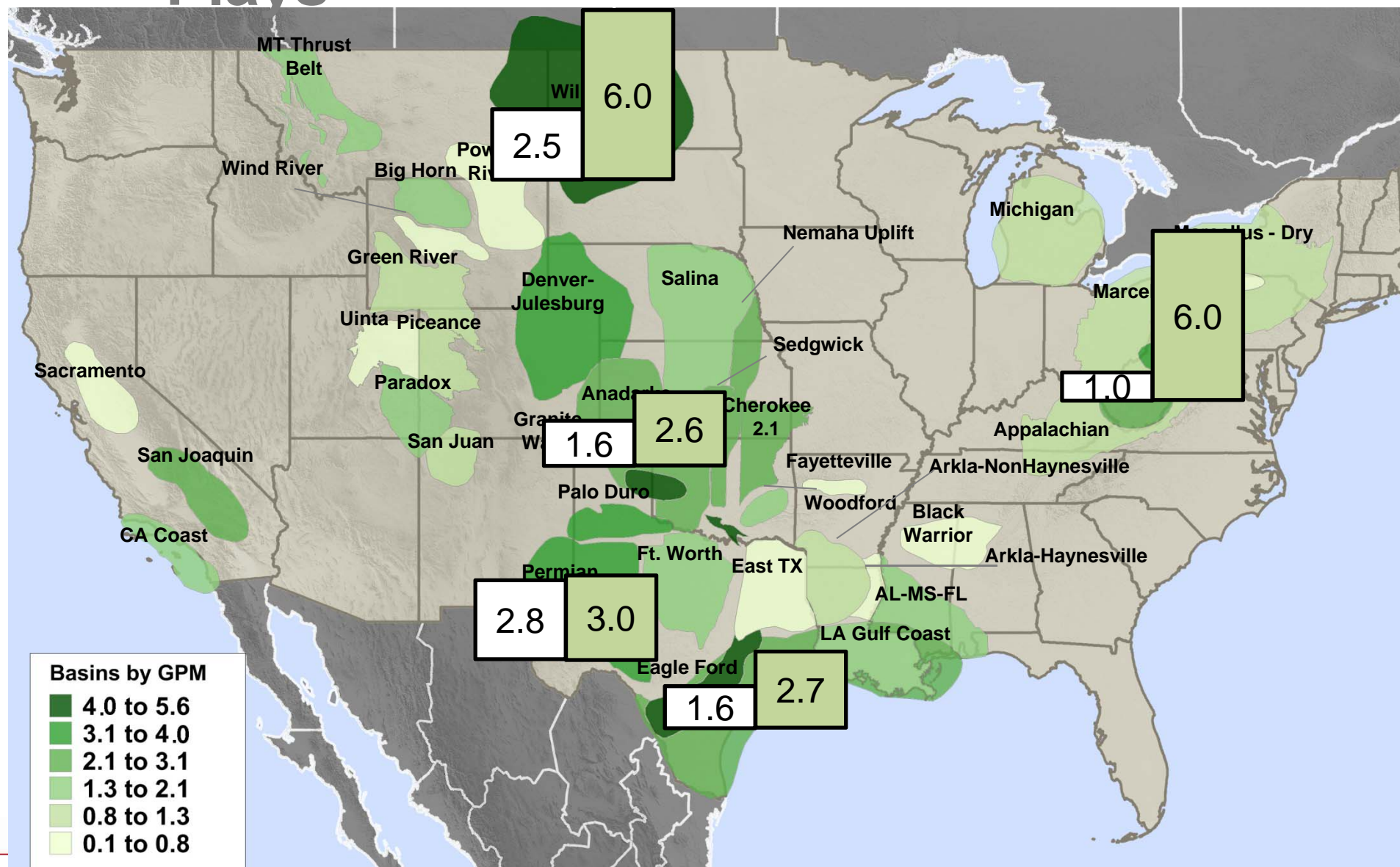
U.S. Gas Plant NGL Production Rising



Liquids Plays – Returns Scenarios

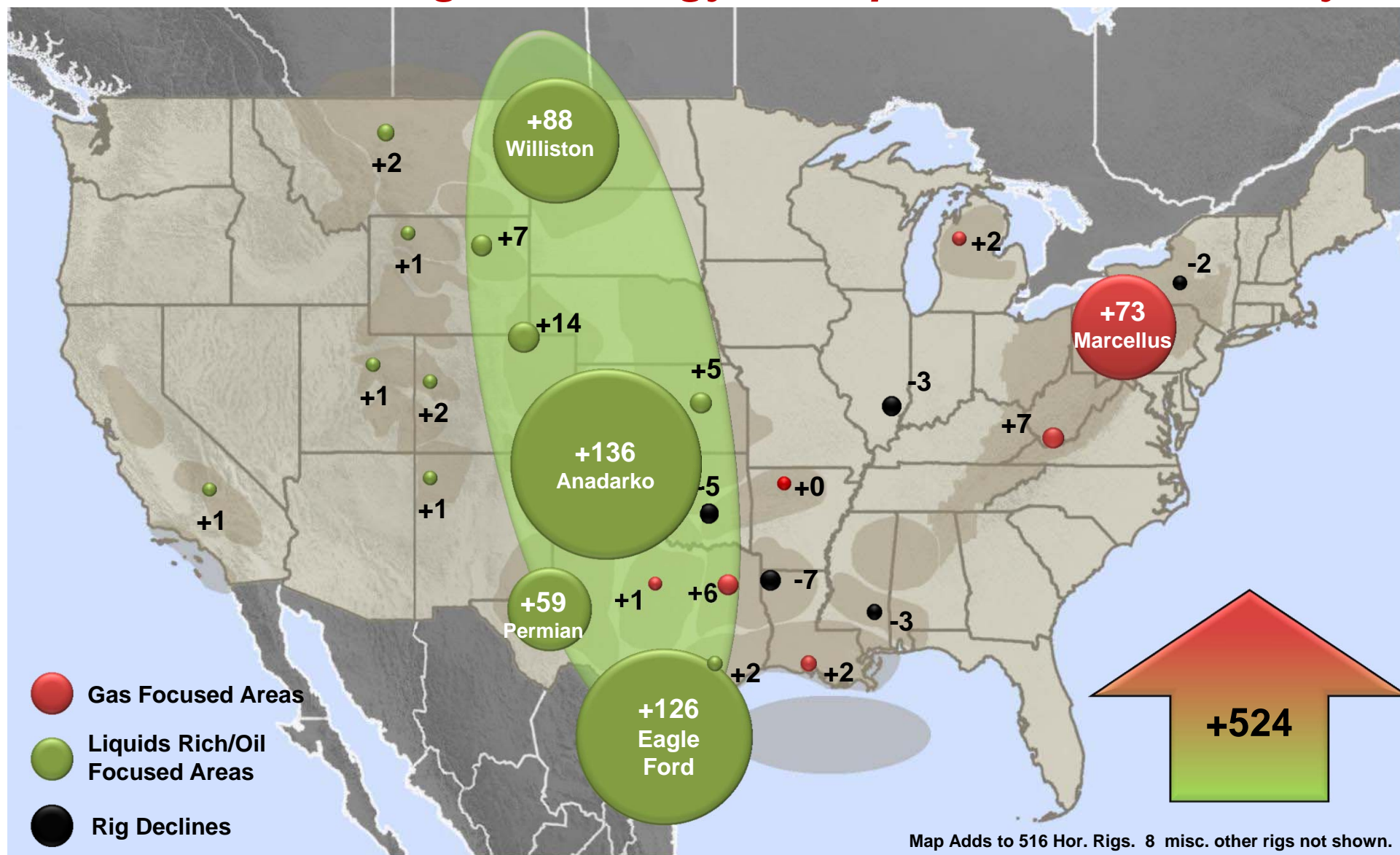


Changing GPMs: Movement to Richer Plays



Horizontal Rig Additions Since – Jan. 2010

Transfer of Drilling Technology To Liquid Rich and Oil Plays



Key Takeaway Points

- **U.S. Supply Has Been Pushed to Record Levels Due to Shale Gas Plays**
- **Natural Gas Prices Have Remained Low Due to Excess Supply**
- **Natural Gas Liquids Increasing as a Result of New Wet Gas Shale Plays**
- **NGL Prices Tracking Crude Prices**
- **Producers Are Adjusting Strategies to Take Advantage of Higher Liquid Prices**
- **Economics Very Attractive in Wet Gas and Crude Plays**

BENTEK Energy, LLC

BENTEK is an energy market analytics company, focused on the natural gas market and related energy sectors.



Suzanne Minter
sminter@bentekenergy.com

Contact Any Analyst Direct at (303) 988-1320

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