

A photograph of an oil rig at sunset. The sky is filled with orange and yellow clouds, and the sun is low on the horizon. The rig is silhouetted against the bright sky. A dark brown rounded rectangle is overlaid on the image, containing white text.

# Natural Resources & Energy Outlook:

Coal, Oil, Natural Gas, Minerals

By Terry Johnson

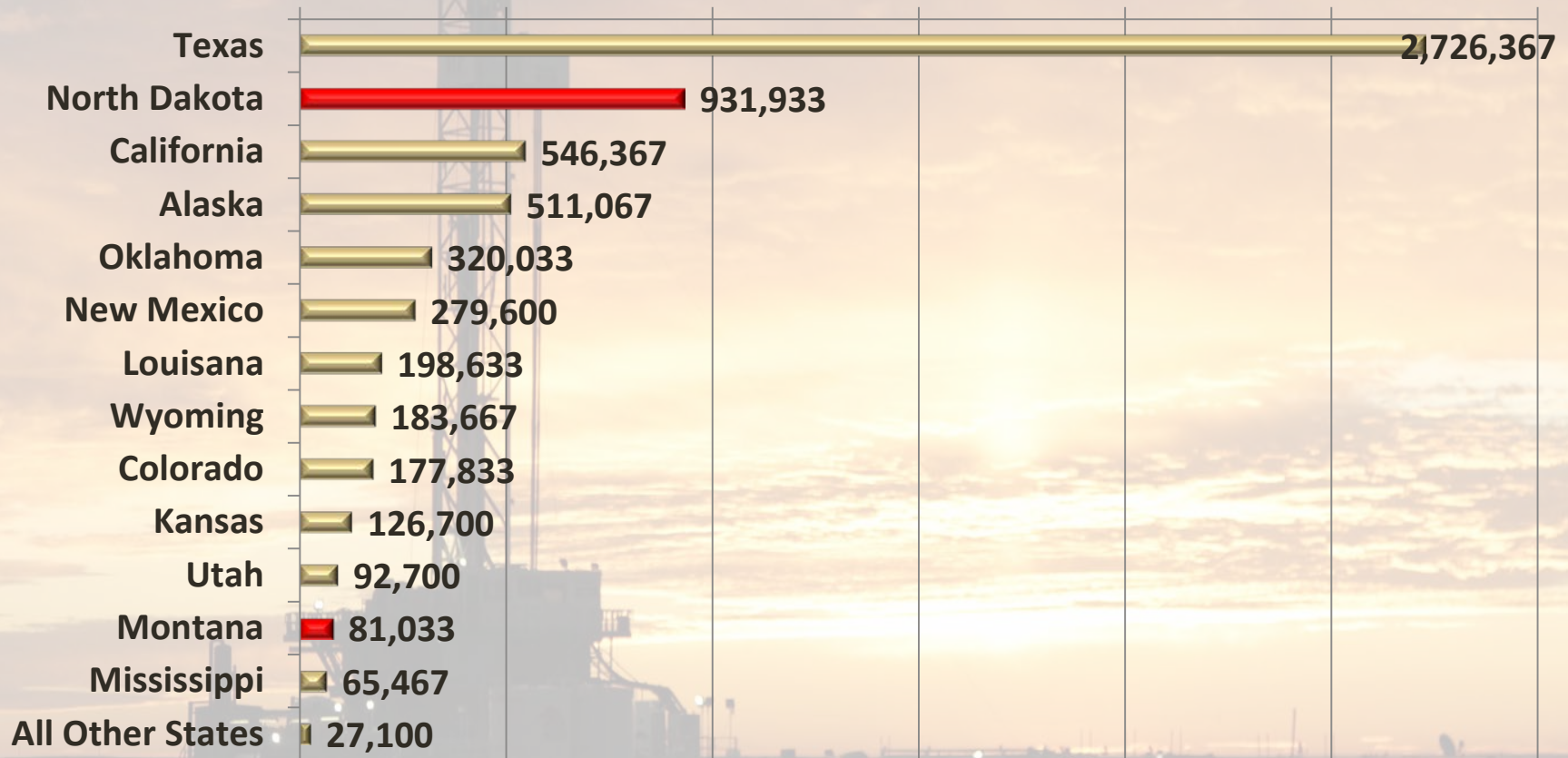
# Eye on Energy

## Major Developments in 2013

- **U.S. Geological Survey**
  - **Revised Assessment**
  - **Three Forks Doubles Recoverable Reserves**
- **NorthWestern Energy**
  - **Proposed Purchase of Dams**
  - **Purchase of Natural Gas Properties**
- **Natural Gas Improvement**
- **CO2 Injection Begins**
- **Wind Farm Litigation**
- **Sage Grouse**

# U.S. Crude Oil Production

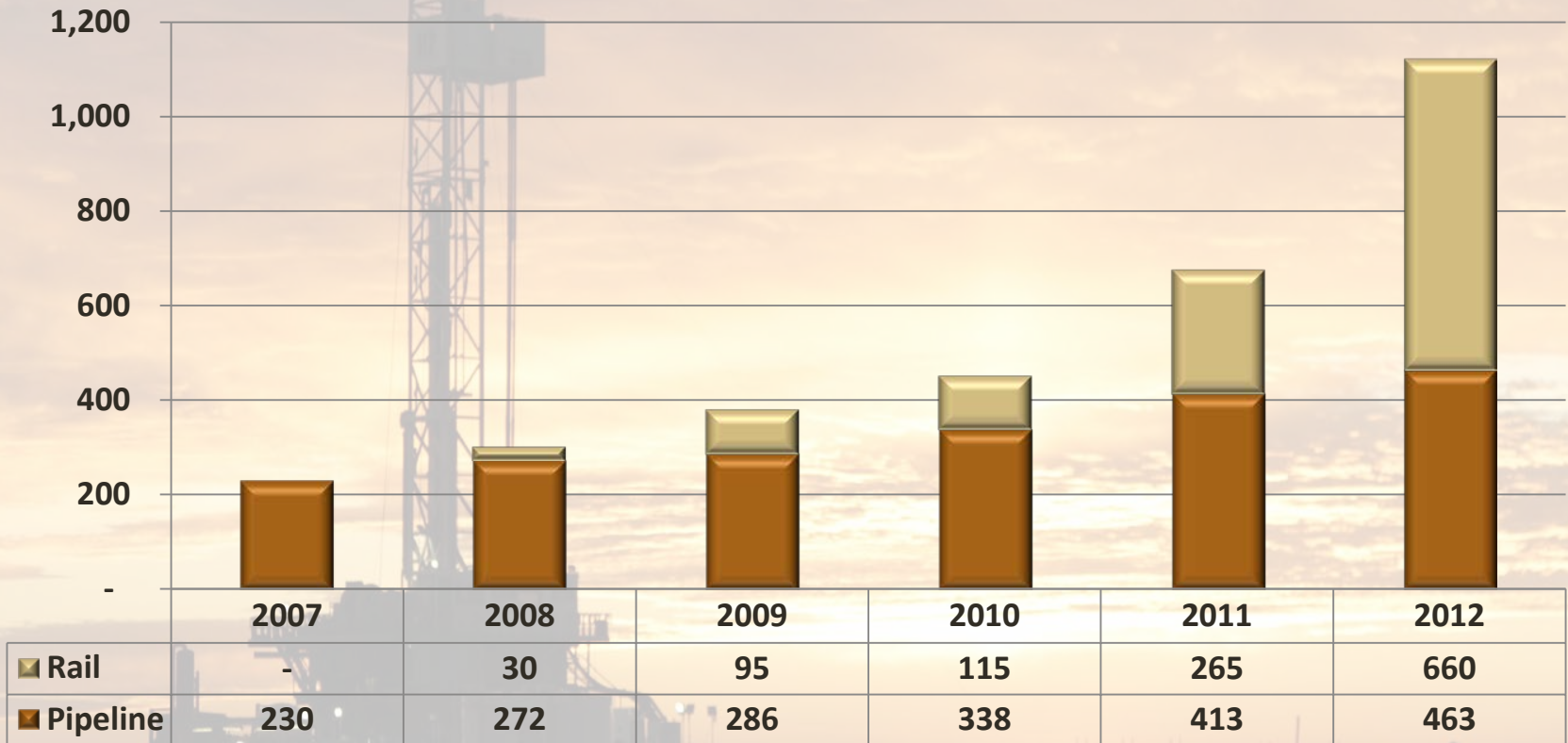
US Oil Production Rank  
September 2013, Barrels per Day



Source: Energy Information Administration

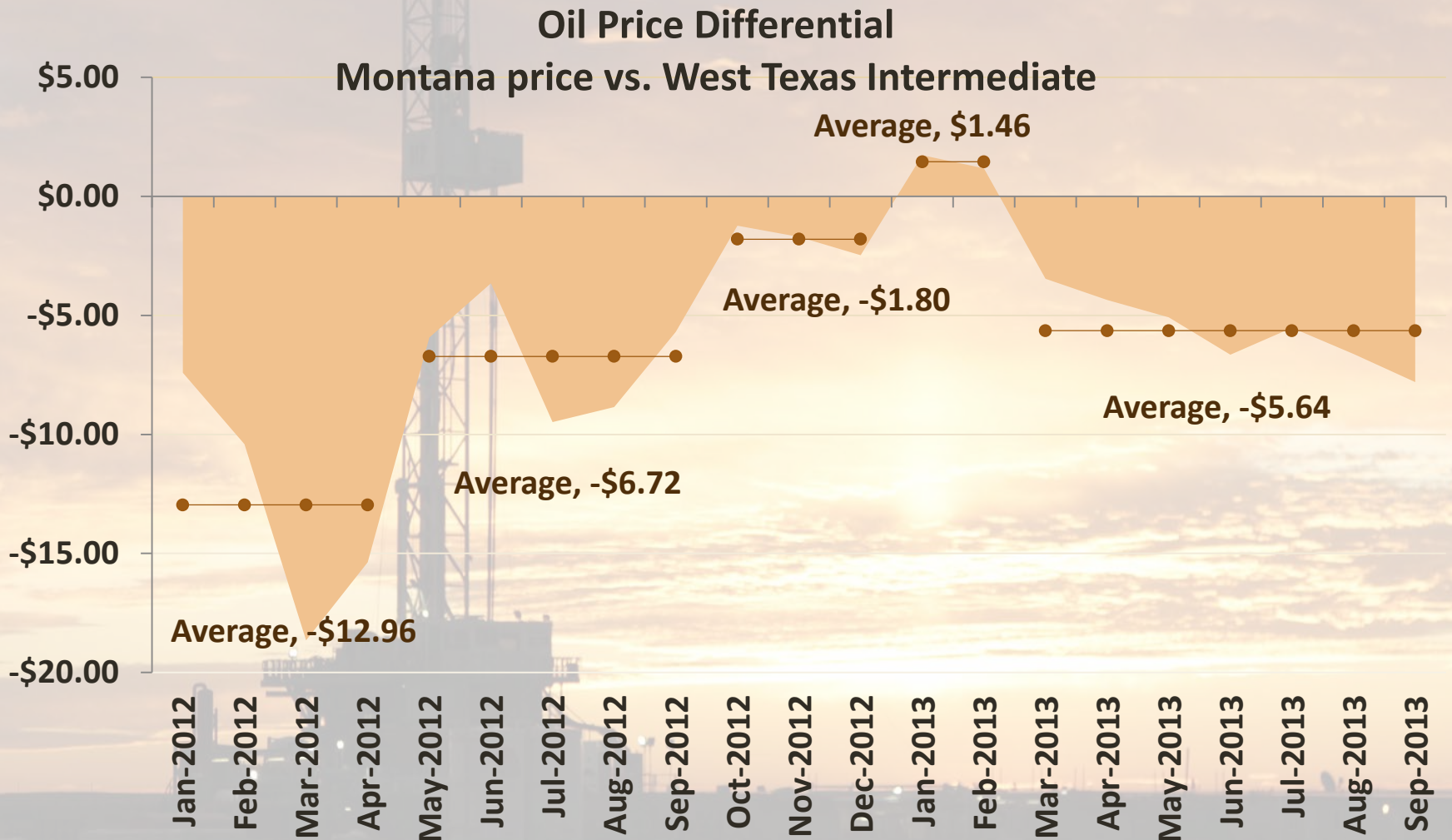
# Is Infrastructure Available?

**Williston Basin Oil Export Capacity  
Thousand Barrels per Day**



Source: Energy Information Administration

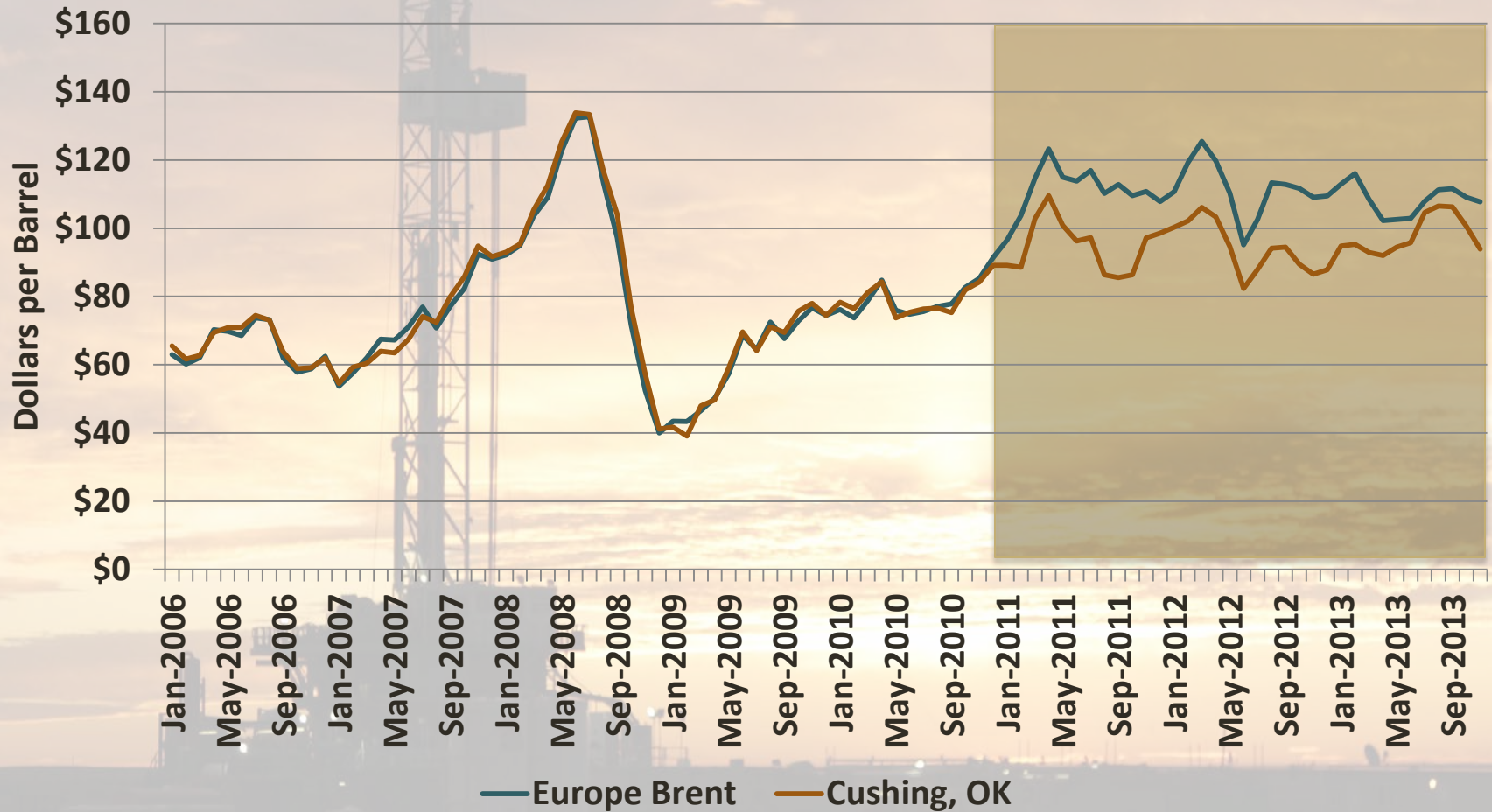
# Transportation Options Impact Price



Source: Energy Information Administration

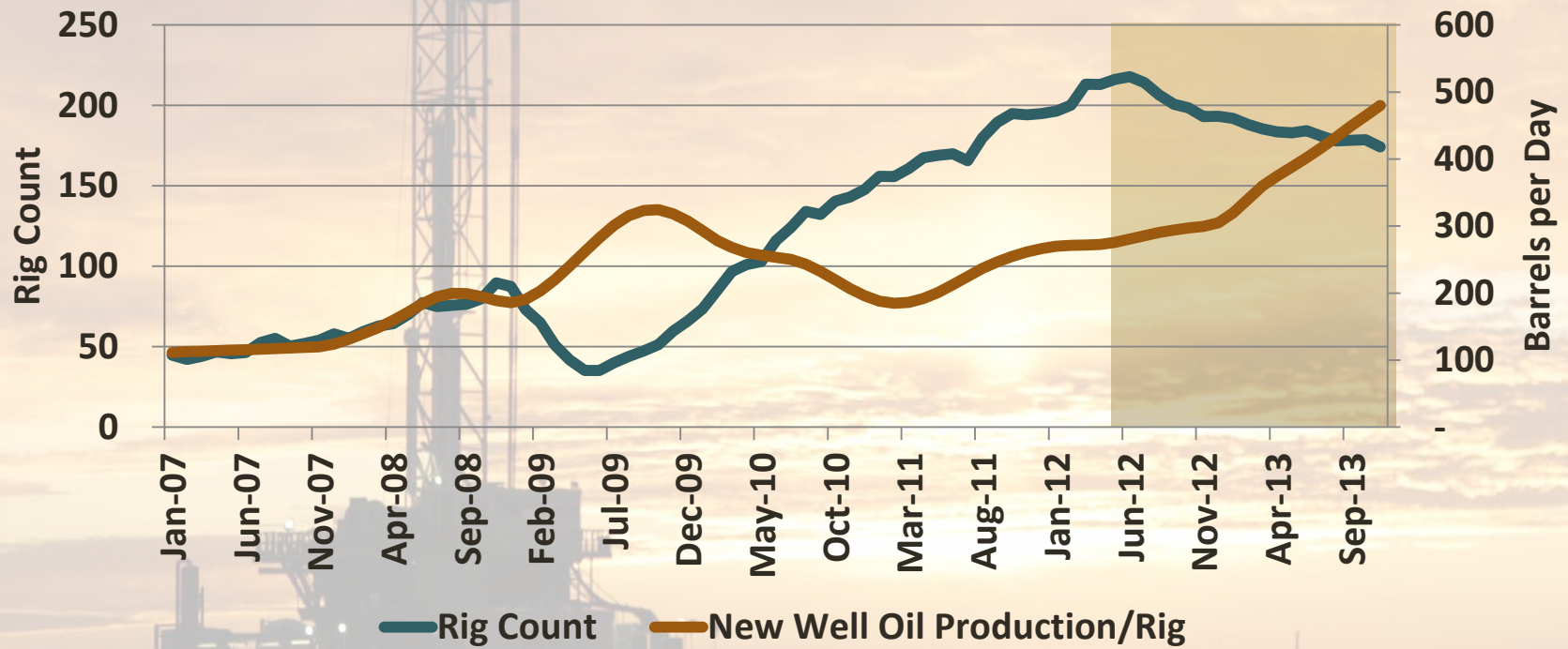
# U.S. Refinery Oversupply

## U.S. Crude Price vs. Europe Brent Price



# Drilling Rig Efficiencies

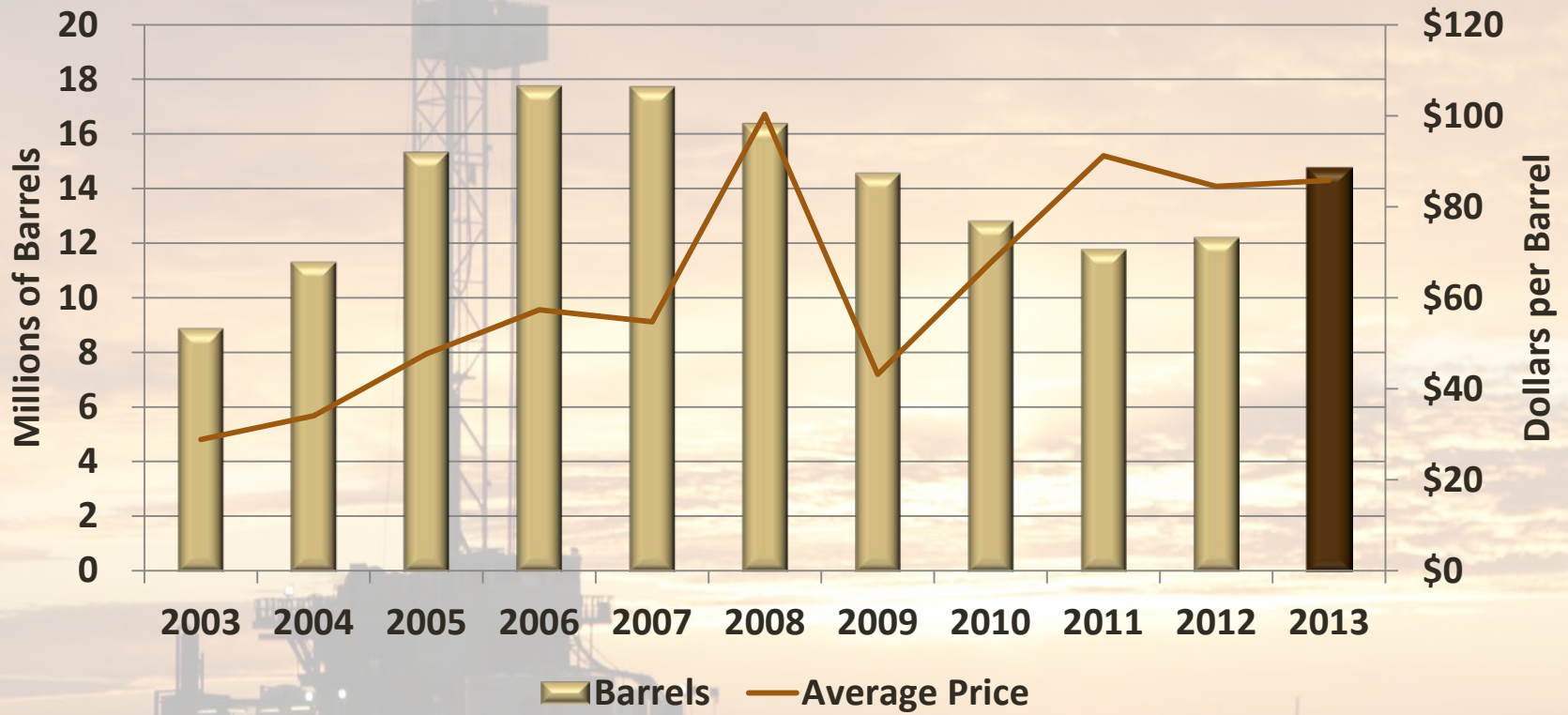
Rig Count  
Versus Bakken New Well Oil Production



# Montana Oil Production



Montana Oil Production & Price  
Quarter 1 & 2 by Calendar Year



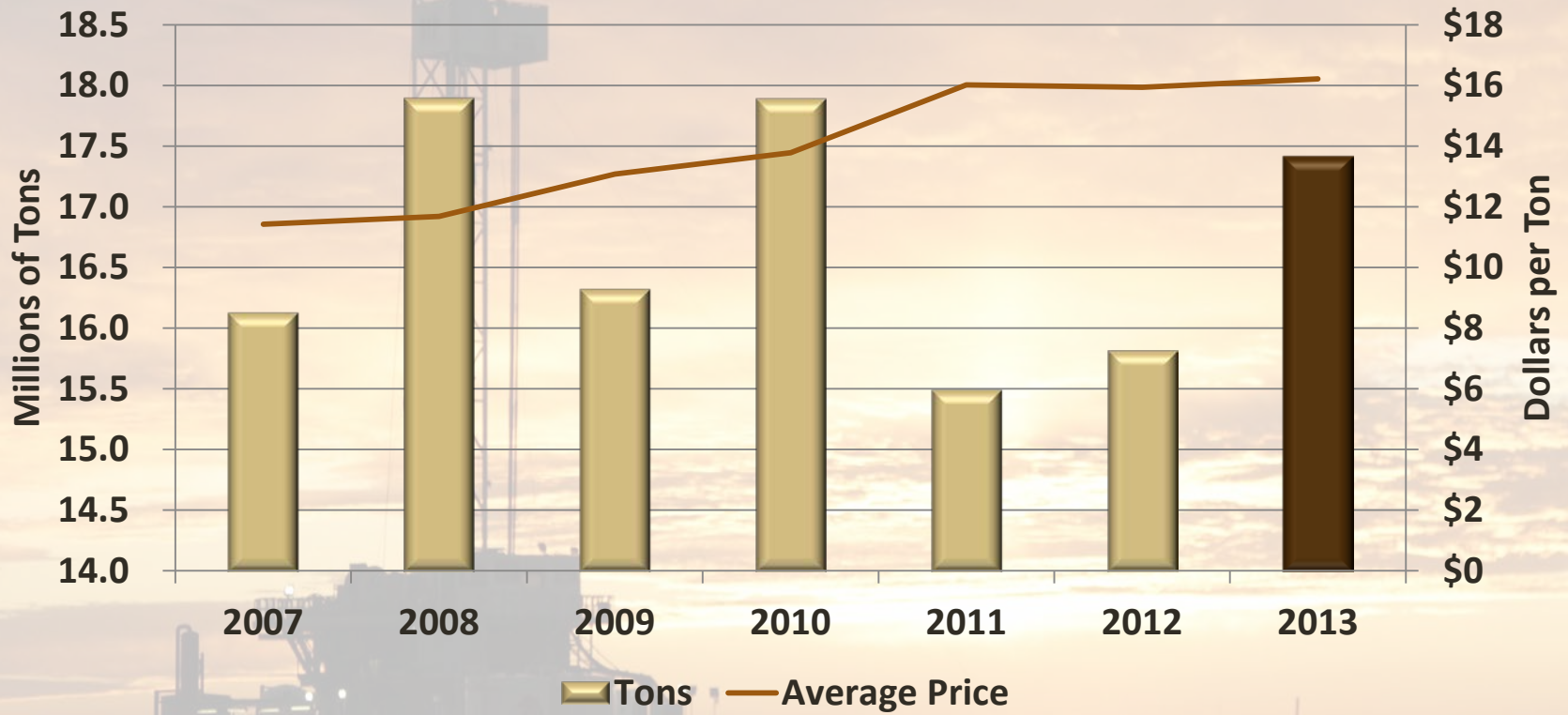
Source: Energy Information Administration, Montana Department of Revenue



# Montana Coal Production



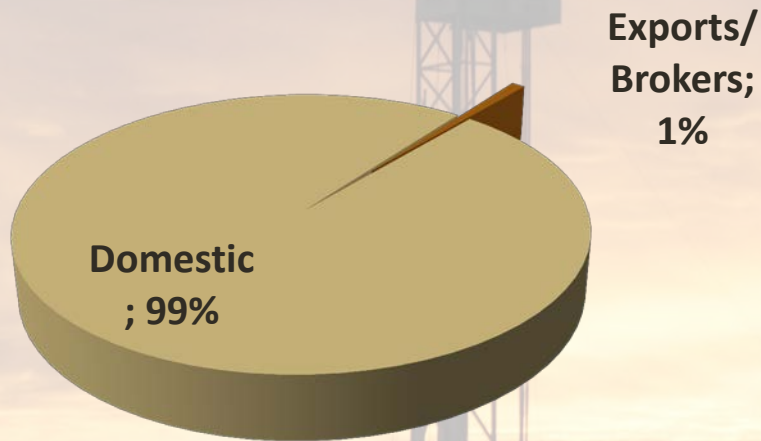
Montana Coal Production & Price  
Quarter 1 & 2 by Calendar year



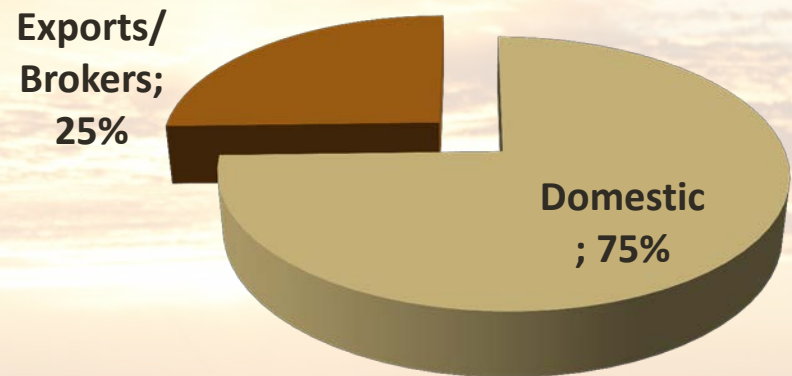
Source: Energy Information Administration, Montana Department of Revenue

# Montana Coal Market Shift

Montana Coal Destination  
Calendar 2007



Montana Coal Destination  
Calendar 2012



# Montana Coal Headwinds

- **Environmental Regulations**
  - EPA Clean Air Standards for new power plants  
(applies to both new gas and coal fired plants)  
(60 day comment period)
  - EPA Clean Air Standards for existing power plants  
(proposed standards by June 1,2014)
- **Pacific Northwest Port Facilities**
- **Stock Prices**

# Montana's Energy Outlook

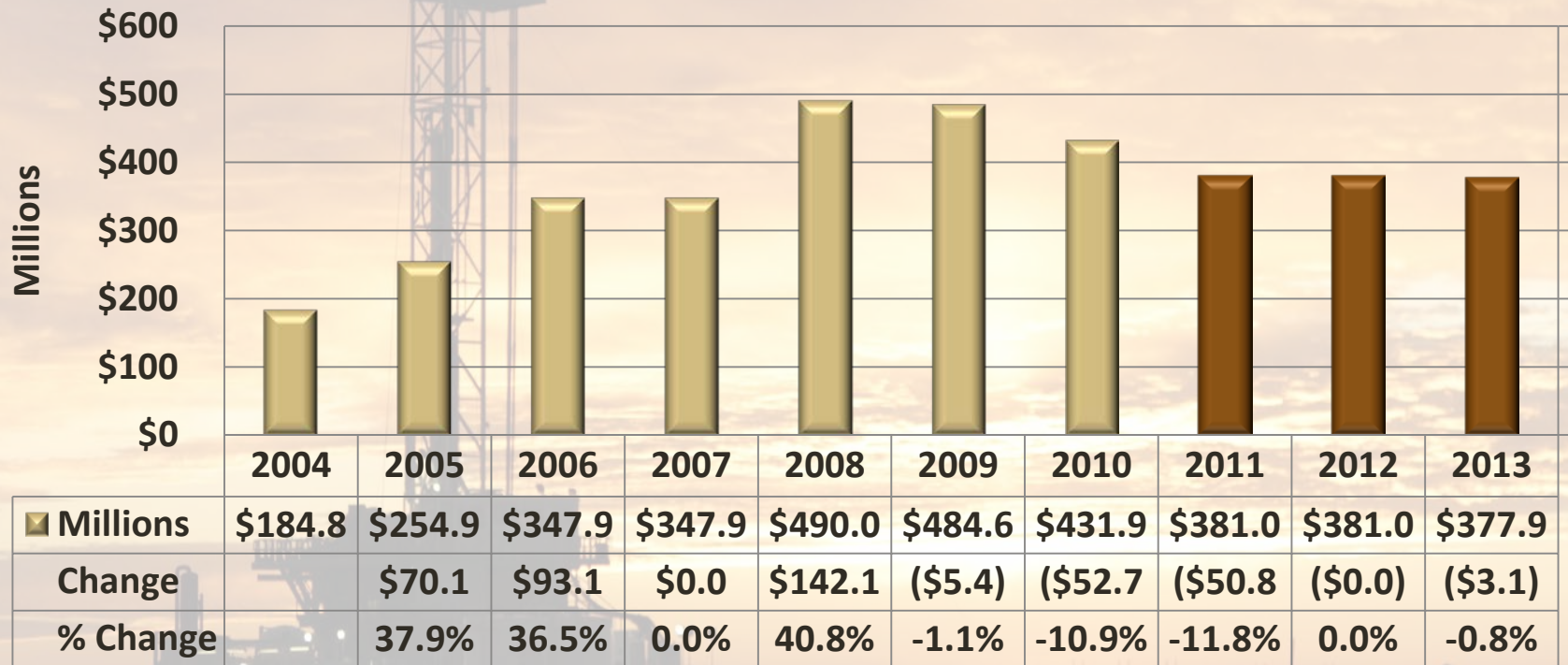
- **Coal (Stable)**
  - Export Markets
  - Transportation Costs
- **Oil (Increase)**
  - Drilling Efficiencies
  - Transportation Options
  - Refinery Oversupply

# Montana's Energy Outlook

- **Natural Gas (Increase)**
  - **Electricity Generation**
  - **Environmental Issues with Coal**
- **Mineral (Decrease)**
  - **Economic Recovery**
  - **Commodity Prices**

# Governmental Revenues

## Natural Resource & Energy Tax Trends Revenue Collections By Fiscal Year



Source: Montana Statewide Budgeting and Human Resource System

# Questions

Terry W. Johnson

Director of Natural Resources & Energy Research

Bureau of Business & Economic Research

University of Montana

[terry.johnson@business.umt.edu](mailto:terry.johnson@business.umt.edu)

(406)243-5113