Oil & Natural Gas Production in Kansas Today

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U.S. Energy Consumption by Source
Energy Information Administration AEO 2012

- Oil: 36%
- Natural Gas: 26%
- Coal: 20%
- Nuclear: 9%
- Hydro: 3%
- Biomass: 5%
- Wind/Solar: 1%
Despite Growth in Renewables, World Consumption of Oil and Gas Will Continue to Increase

Are we about to enter the age of fossil fuels?

U.S. Oil and Natural Gas Proved Reserves, 1979-2010

- Oil (billion barrels)
- Gas (trillion cu. feet)

Source: EIA
Carpe Diem Blog

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CRAMER'S TOP ENERGY PLAYS
What is Marginal Oil & Gas

- Lower edge of profitability
  - High Cost
  - Low Yield

- 10 barrels of oil per day or less

- 60 thousand cubic feet (Mcf) of natural gas per day or less
Who are Independents?

- Small Businesses
- Drill and produce crude oil and natural gas
- Not integrated
  - Sell crude and natural gas to purchasers
  - Do not generate and market end-products
Kansas Oil & Gas Industry Statistics

- First Oil Well = 1860
  - Miami County
- First Natural Gas Well = 1873
  - Montgomery County
- Current # of Oil Wells = 40,850
- Current # of Gas Wells = 18,639
- Current # of Injection Wells = 15,428
- Current Total # of Wells = 74,654
- Current # of Operators = 2,113

- Current Oil Production
  - 43.2 Million Barrels Annually
  - 118,000 Barrels per Day
  - Increased 6 of last 7 years
  - Up 4.21% in 2012
  - Ranked 9th Among 31 Oil Producing States

- Current Natural Gas Production
  - 298 Billion Cubic Feet Annually
  - 820 million Cubic Feet per Day
  - Ranked 9th Among the 32 Natural Gas Producing States

- Drilling Permits Issued in 2012 = 6,861
  - Permits Issued in 2011 = 5,441

- Number of Active Drilling Rigs = 117
Kansas Oil & Gas Fields
Kansas Oil & Gas Industry Statistics

- Supports 67,000 Kansas Jobs and $3 billion in family income
- Invests over $1 billion in rural Kansas annually
- Average Daily Oil Well Production = 2.79 BOPD
  - 72% of Total Kansas Crude Oil Production from Marginal Wells
  - 94% of Total Kansas Oil Wells
- Average Daily Natural Gas Well Production = 46 Mcf/Day
  - 74% of Total Kansas Natural Gas Production from Marginal Wells
  - 81% of Total Kansas Natural Gas Wells
Kansas Oil & Gas Industry Taxation

- Severance Tax up nearly 146% since 2002
  - Oil tax collections up 211% over last 3 years

- Ad Valorem Tax up 138% since 2002
  - Oil tax collections up 57% over last 3 years

- Average effective tax rate = 13.93%
  - Reduce ROI by 26.5%
Conventional Oil & Gas Development

- Oil and gas migrated from the source rock to the reservoir rock and trapped beneath the cap rock.
- Impervious cap rock
- Porous reservoir rock
- Organic rich source rock exposed to heat and pressure
Unconventional Plays

- Reservoir - seal - and source rock are all one in the same
Unconventional Well Drilling
Dunn County, North Dakota, October 11, 2012
Mississippian Limestone Play

- One of newest oil plays in U.S.

- Emerging Play
  - Northern OK and southern KS
  - $1.2 - $1.5 billion Capex plans
  - 270-500 BOE per day in first 30 days
  - $3 - $3.5 million drilling & completion costs
  - 4,500 feet vertical and 4,500 feet lateral
Mississippian Limestone Play

- 292 MSL Permits issued in 2012
  - 69 producing
  - 54 drilled
  - 95 spudded
- 124 MSL horizontal wells drilled and producing in 2011-2012
- Accounted for nearly 4% of state’s total 2012 oil production
Kansas 2012 Oil & Gas Activity

- Drilling Rigs
- Kansas 2012 Oil Production

- MSL
- Conventional
Key Challenges Facing the Kansas Oil & Gas Industry

- **Federal Tax Provisions are Critical**
  - Repealing oil & gas tax provisions would result in $3.9 billion negative impact on the Kansas economy
  - Reduces Kansas jobs
  - Increases dependence on foreign energy supplies

- **Regulatory Over-reach**
  - Hydraulic fracturing
    - 65-year old technology
    - Ably and aggressively regulated by States
  - Industry under siege from numerous federal regulatory agencies
    - EPA ~ OSHA ~ USFWS ~ Others
Key Challenges for MSL Development

- Geology
- Water
- Electricity
- Oil Prices
Energy for the Future
Thank You

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