

Upstream Oil and Gas Investment: The Impacts of a Weak Global Economy

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The CSIS Energy and National Security Program

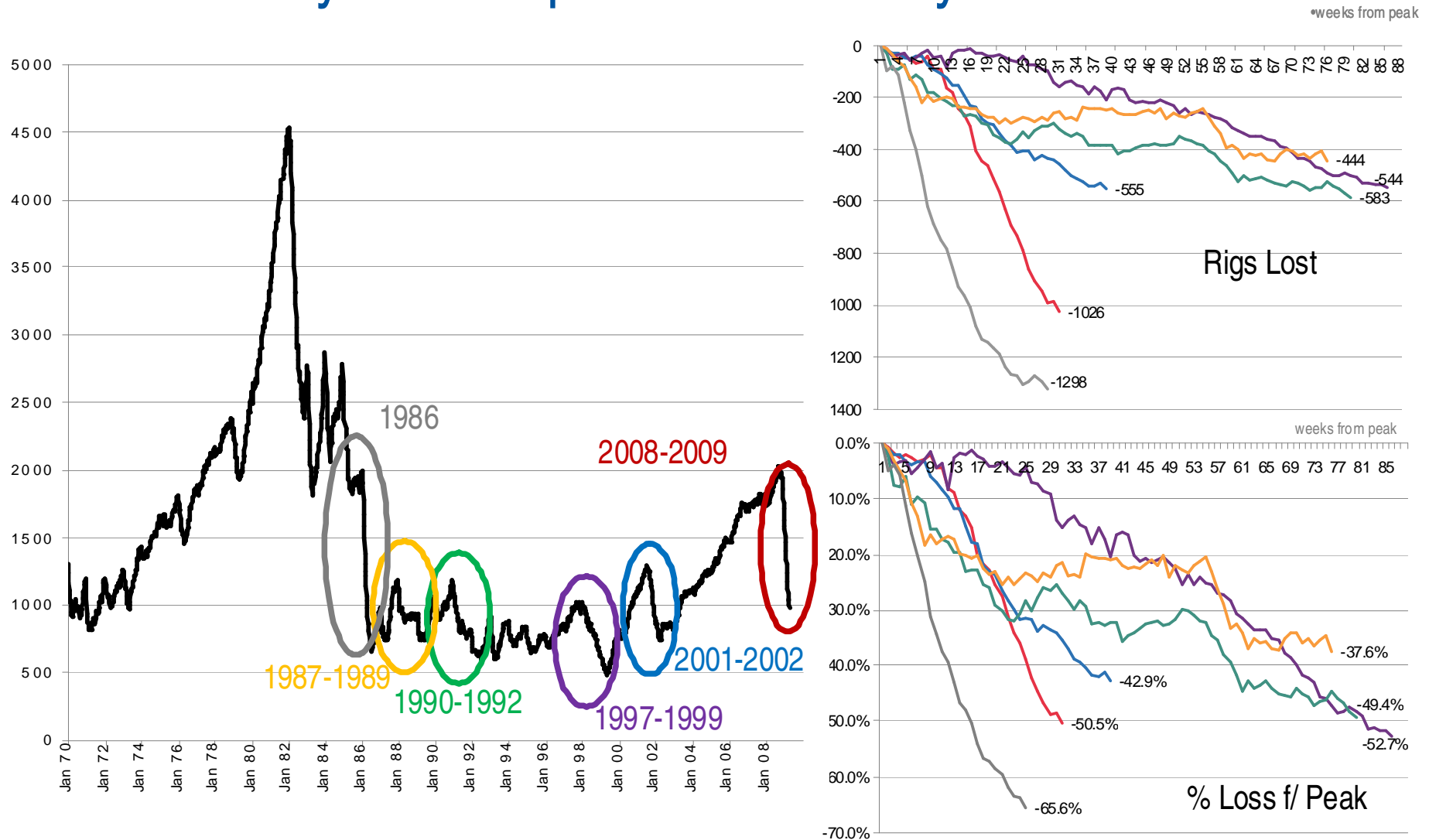
June 3, 2009



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This US Cycle Compared to Past Cycles

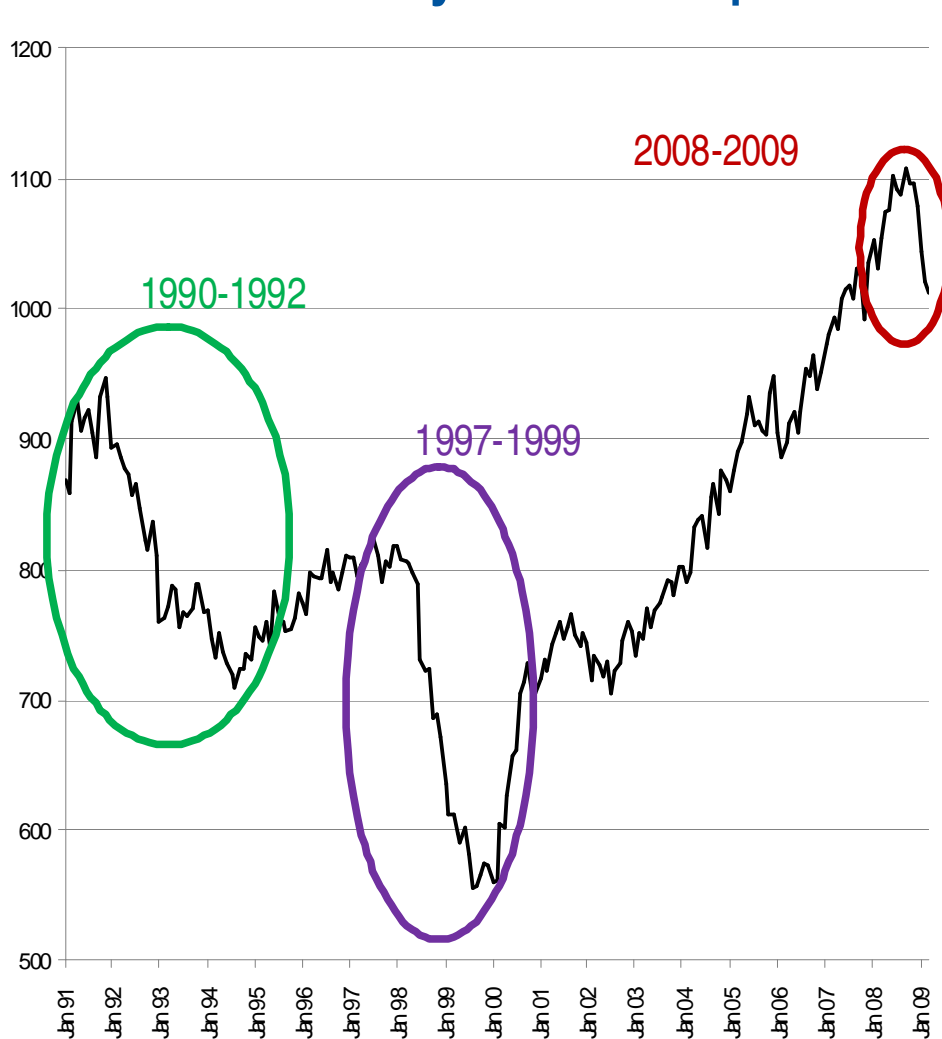


*Updated 4/9/09

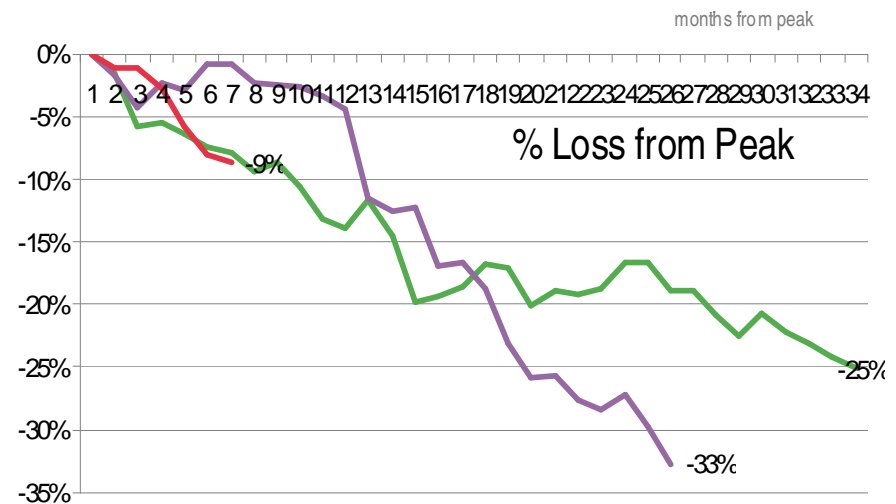
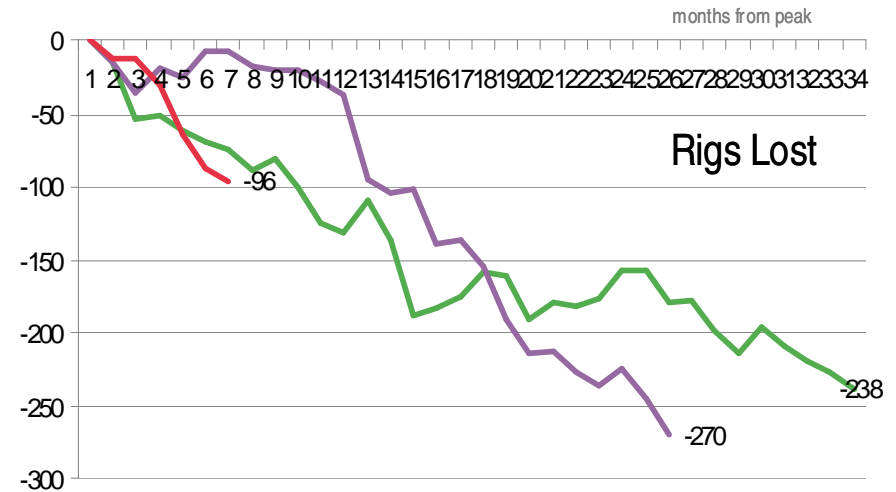
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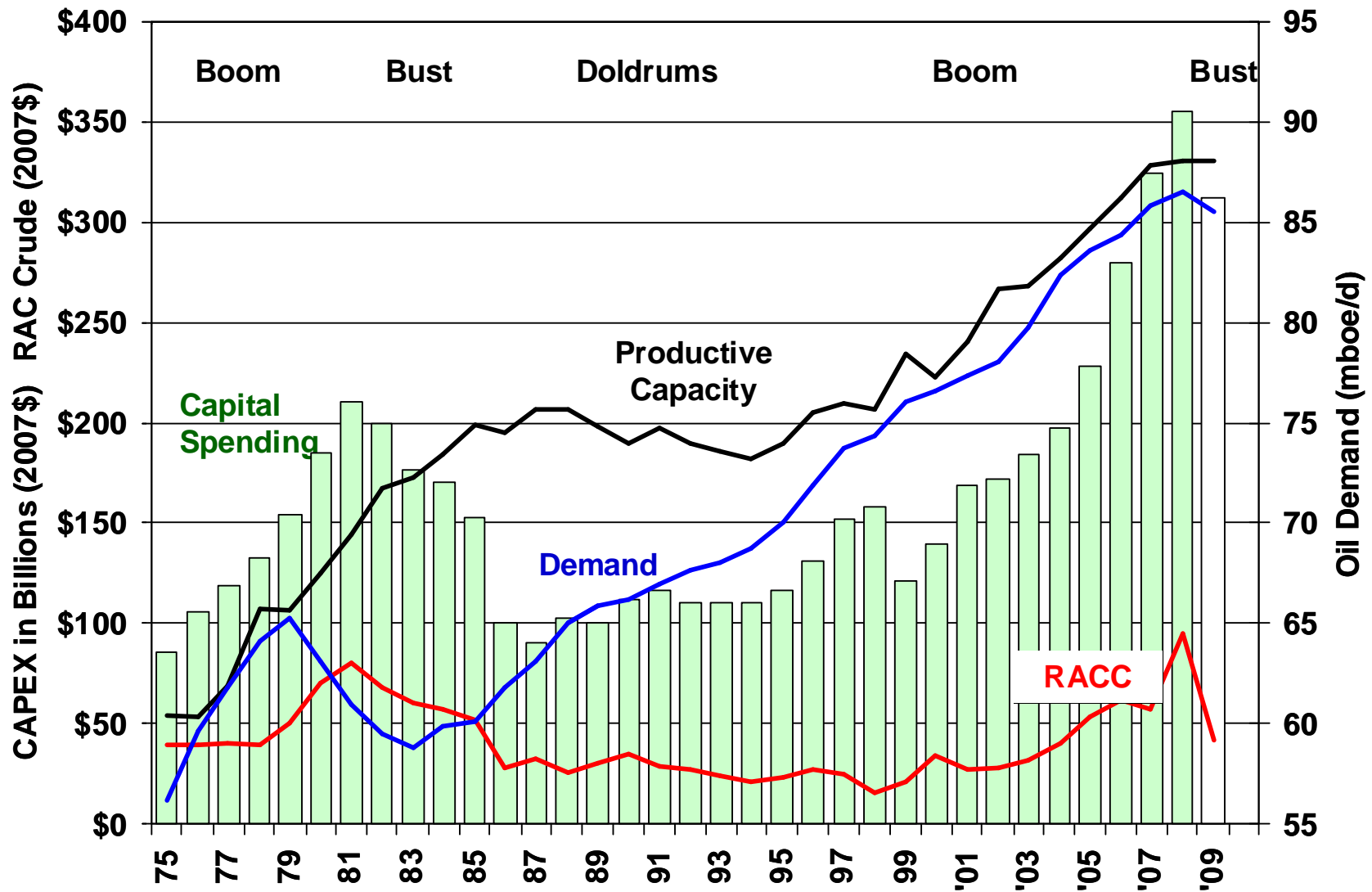
This Int'l Cycle Compared to Past Cycles



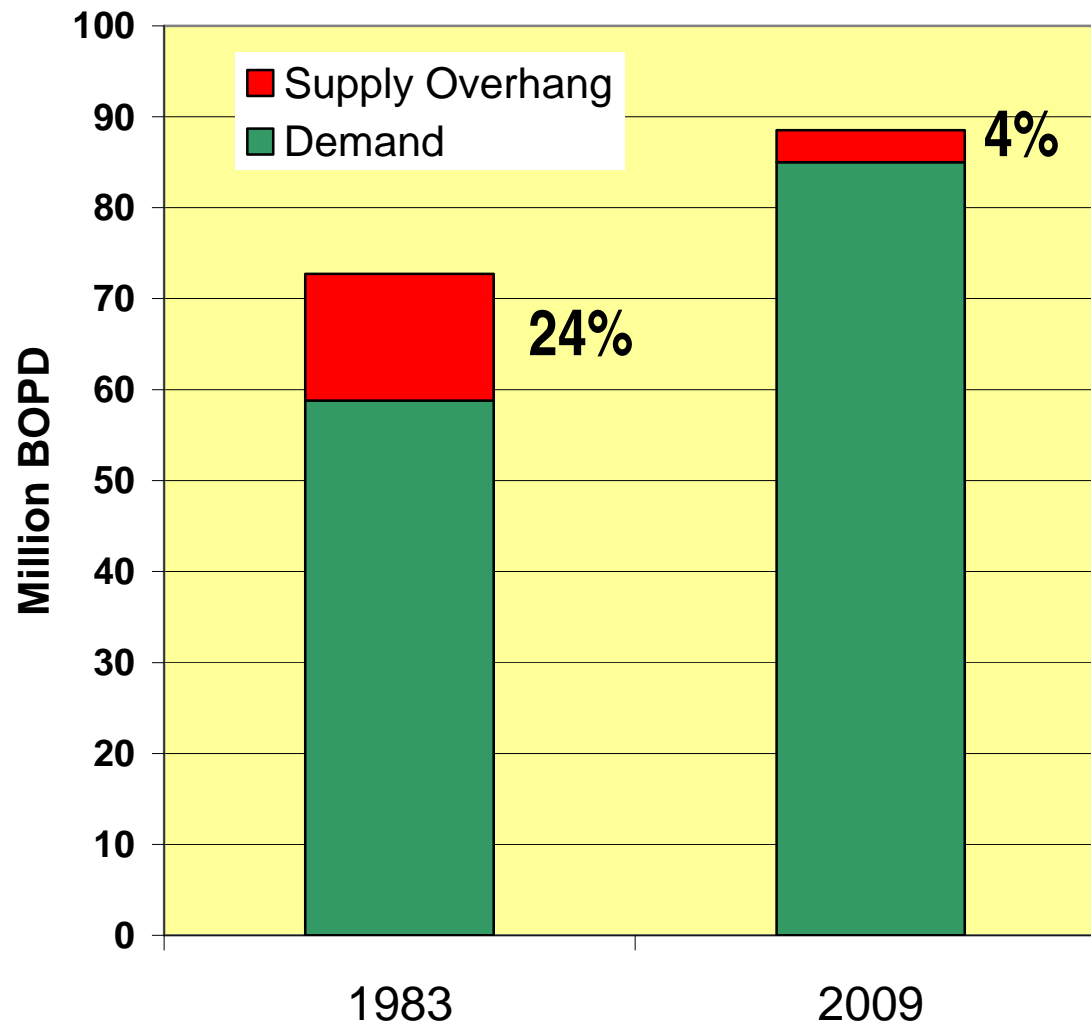
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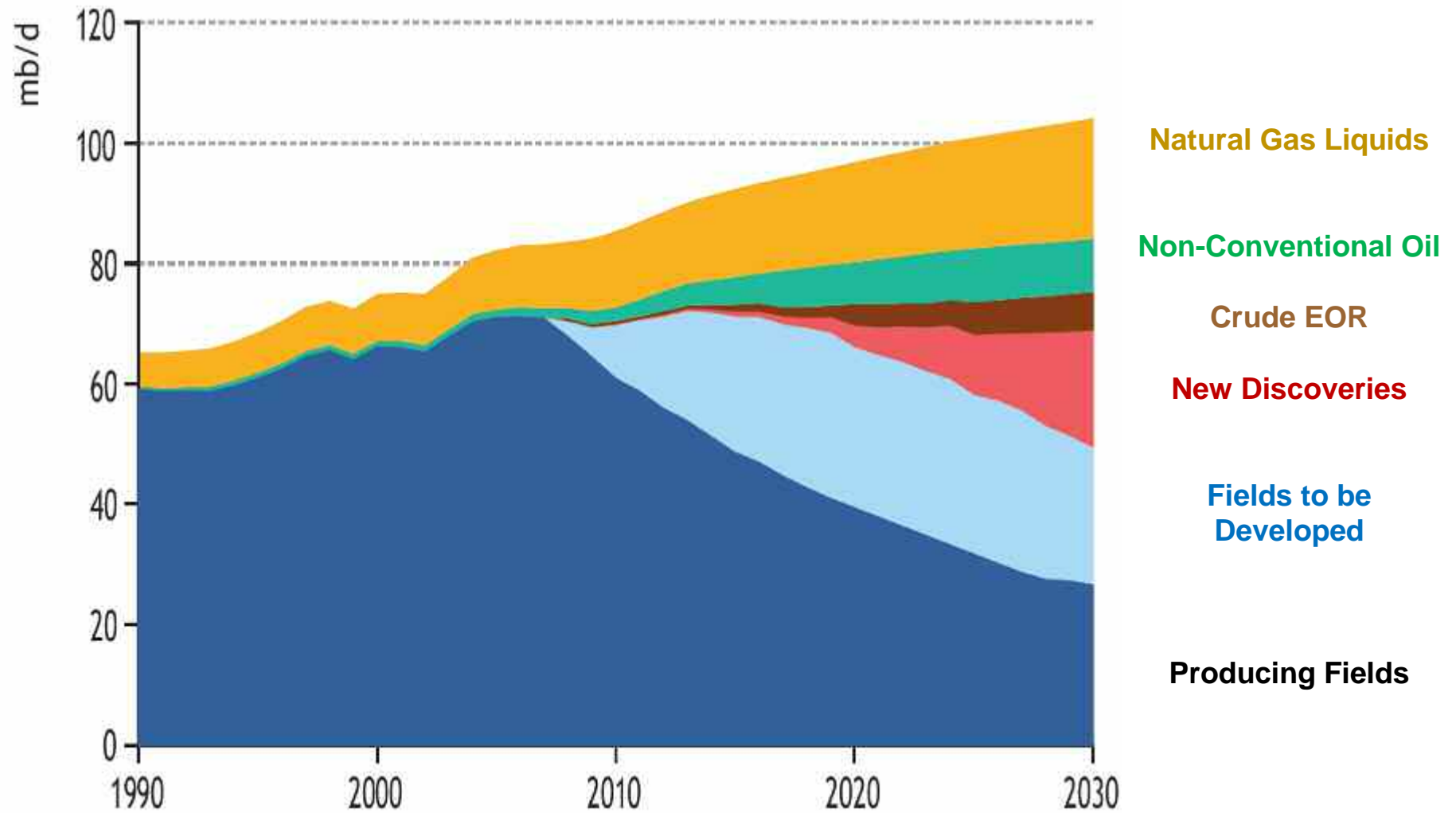
Demand, Price & CapEx



Oil Demand and Excess Production Capacity



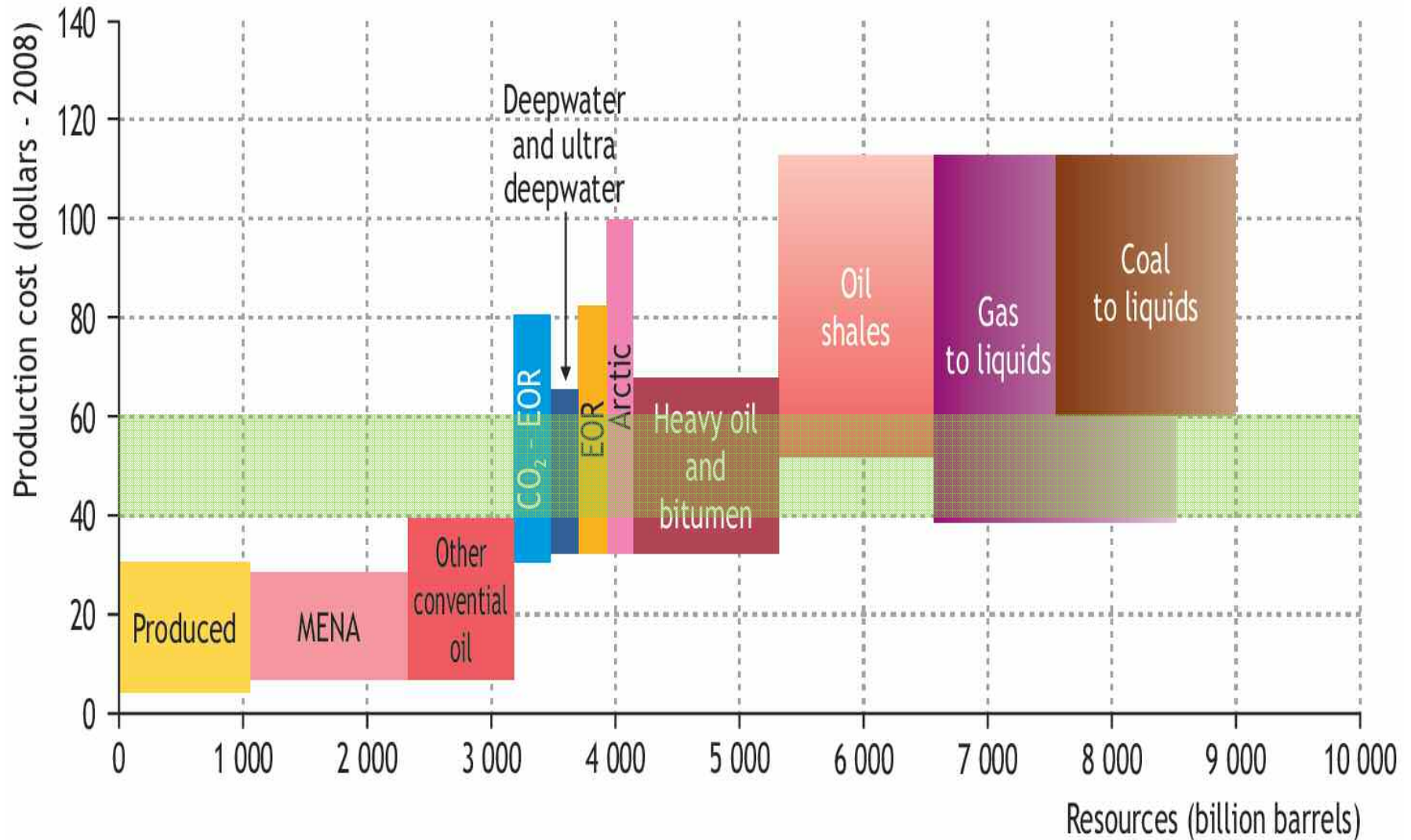
Supply Challenge



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Lower Prices Stressing Projects

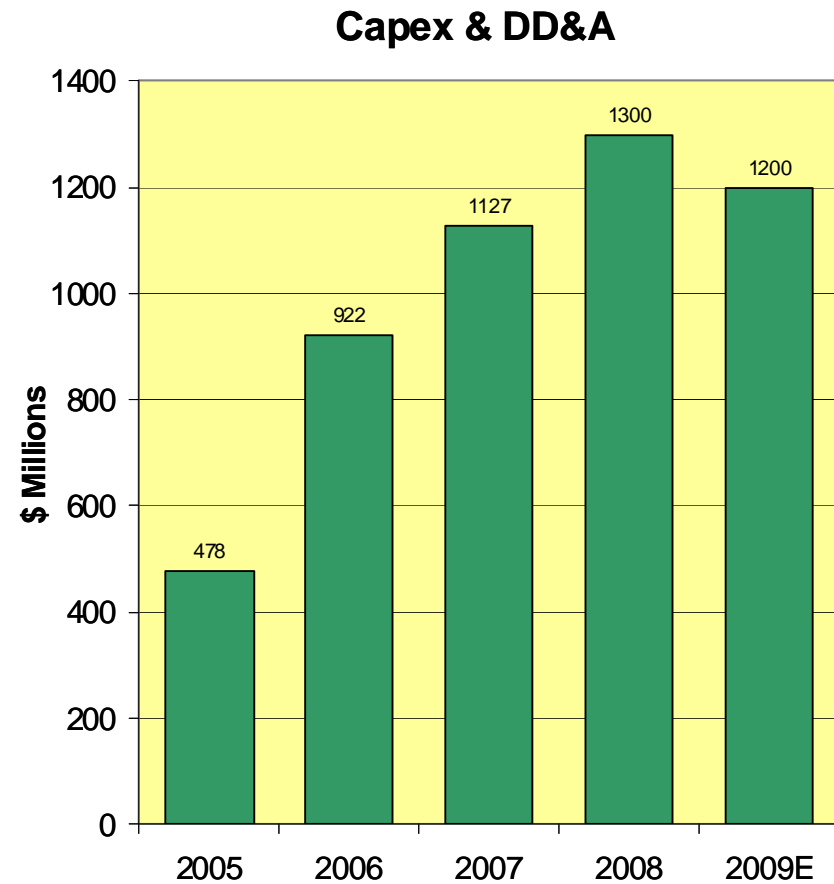
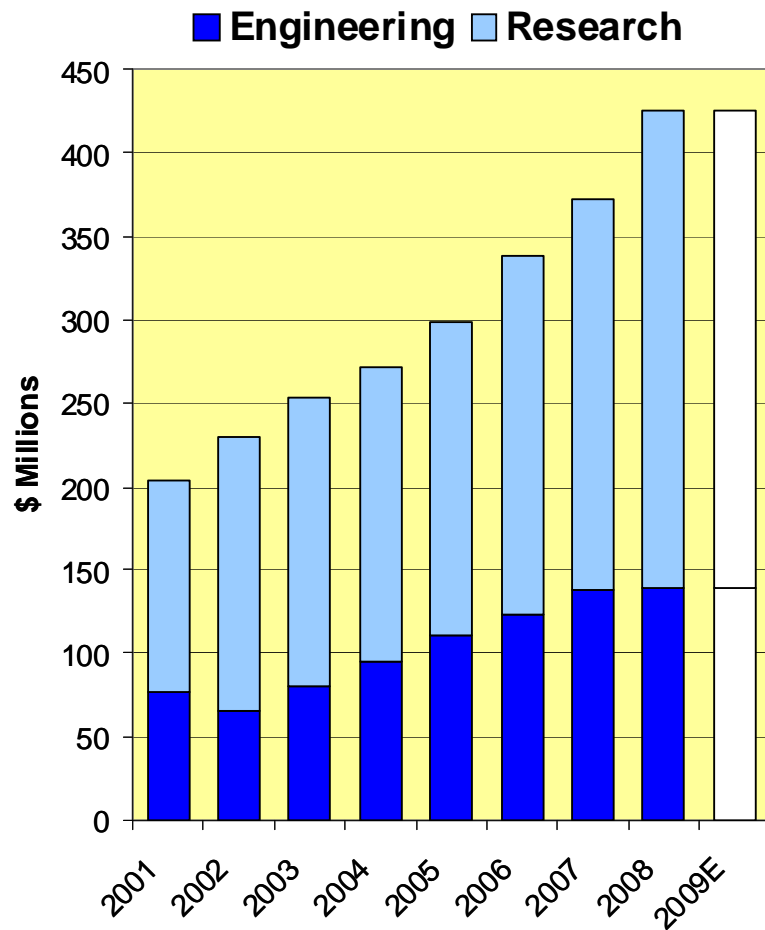


Service Companies Are Different

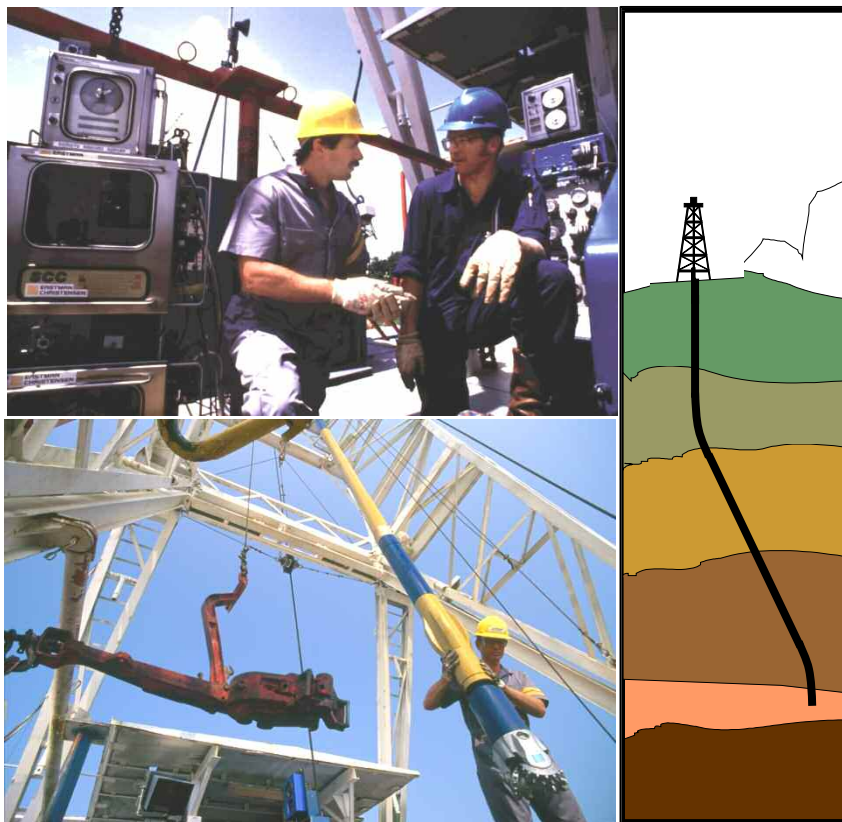
- Technology
- Expertise
- Global in scope
- Project Management
- Provide solutions, not just callout services



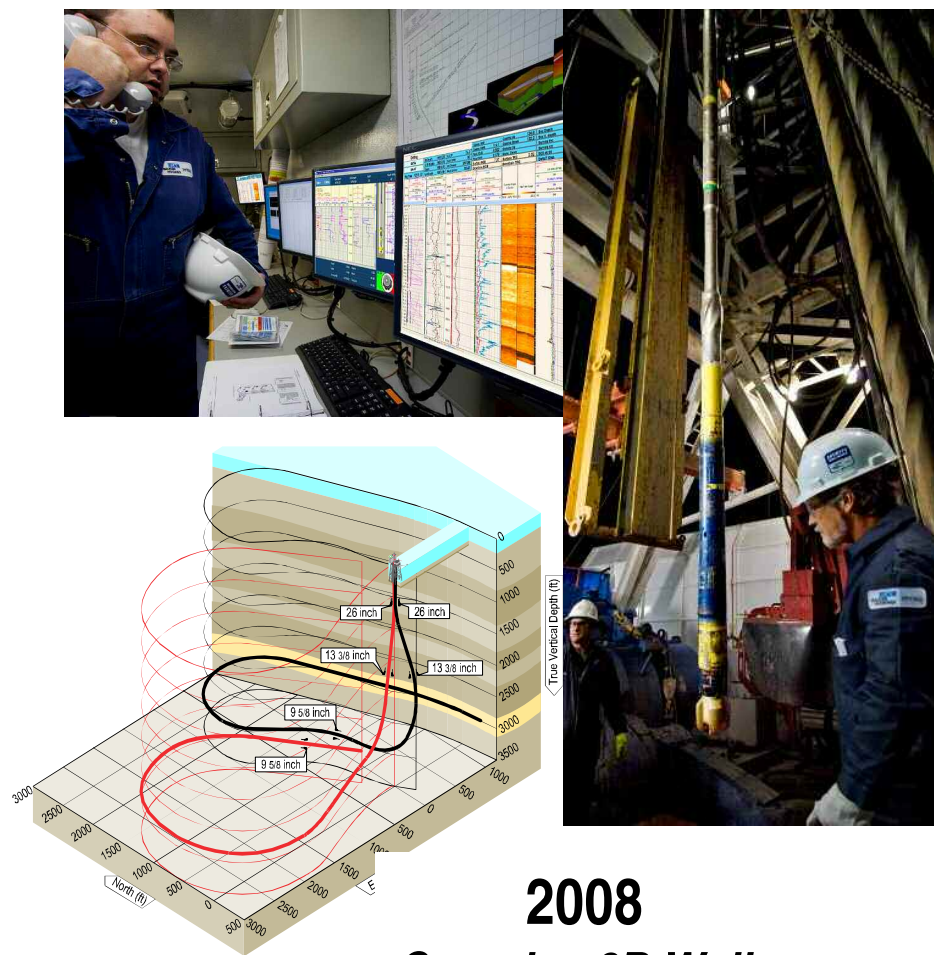
BHI Technology and Infrastructure Investment



Technology Has Advanced Tremendously



1988
2D Wells

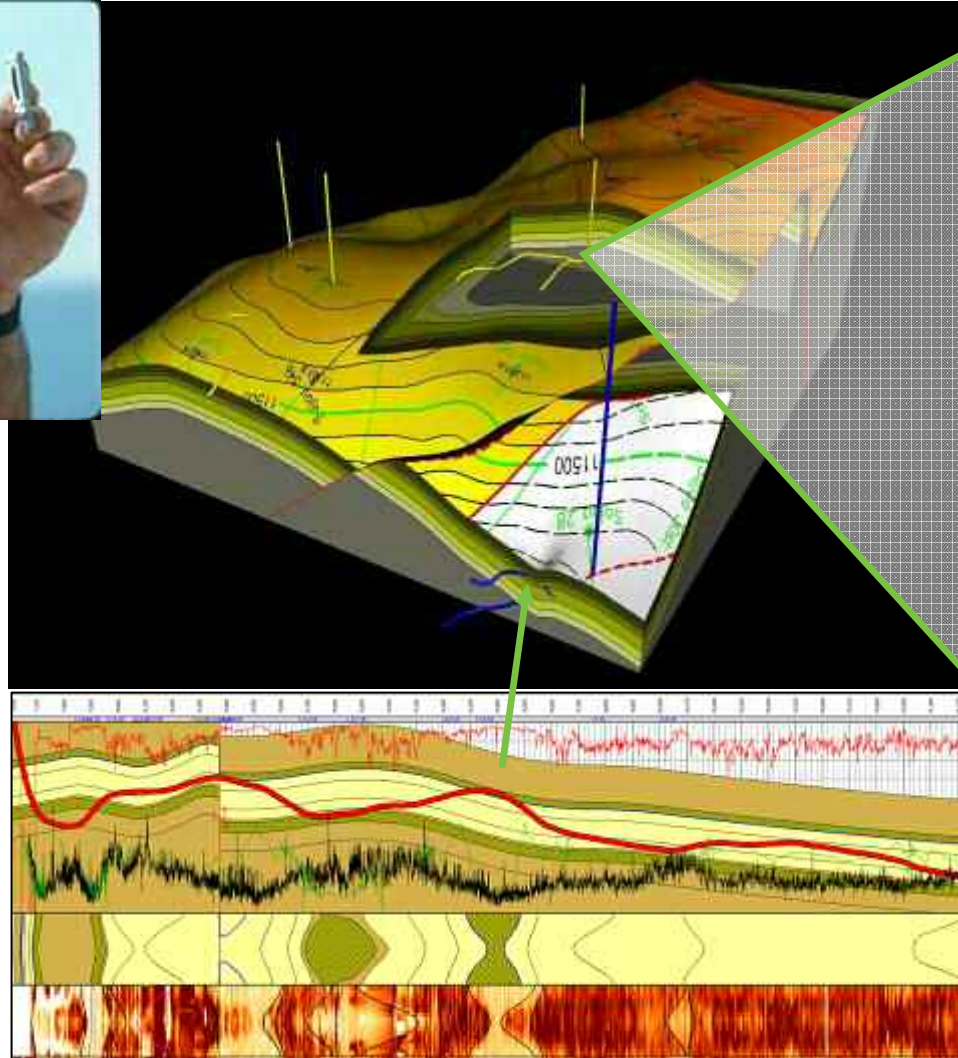


2008
Complex 3D Wells

We Use High Technology Every Day



**1980
Directional
Single Shot
Survey,
Gulf of Mexico**

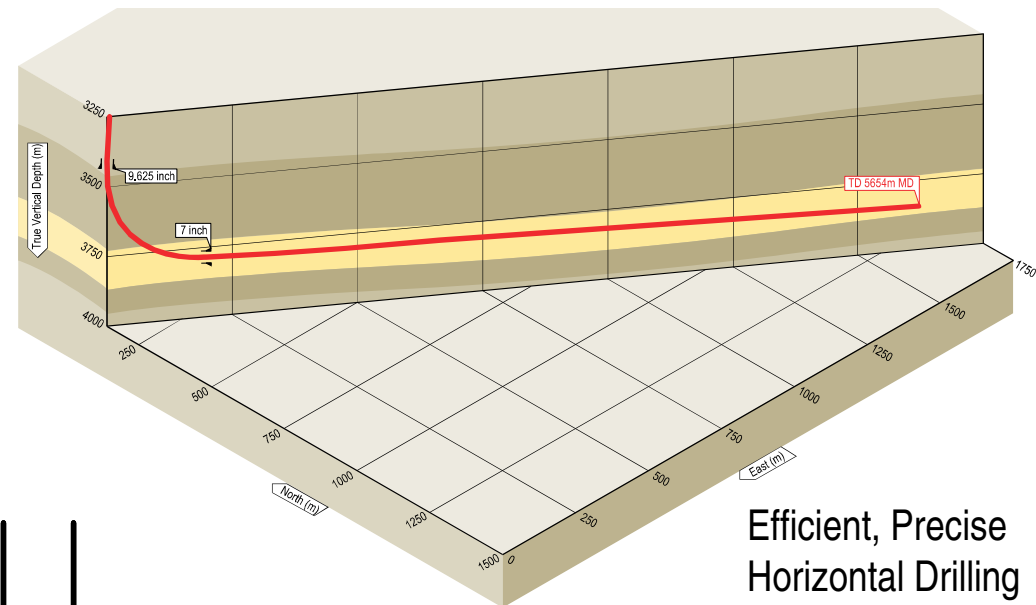


**2008
2D / 3D modeling
and geosteering,
Middle East**

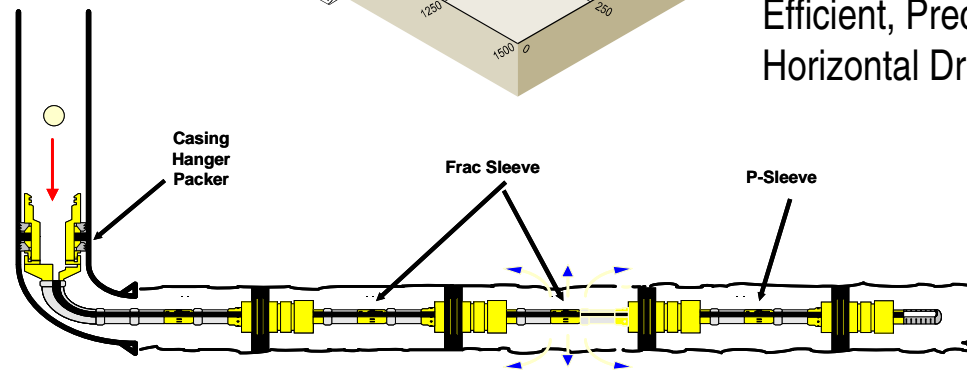
Technology Unlocks Unconventional Resources



Frac-Point™ System



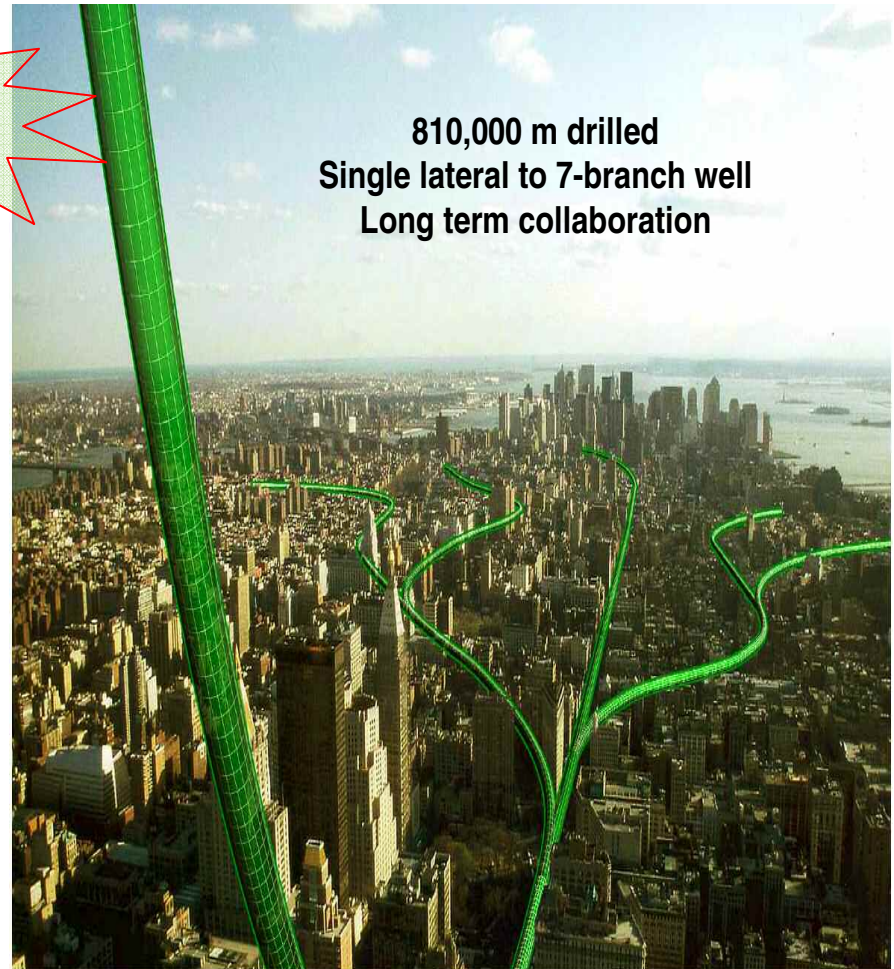
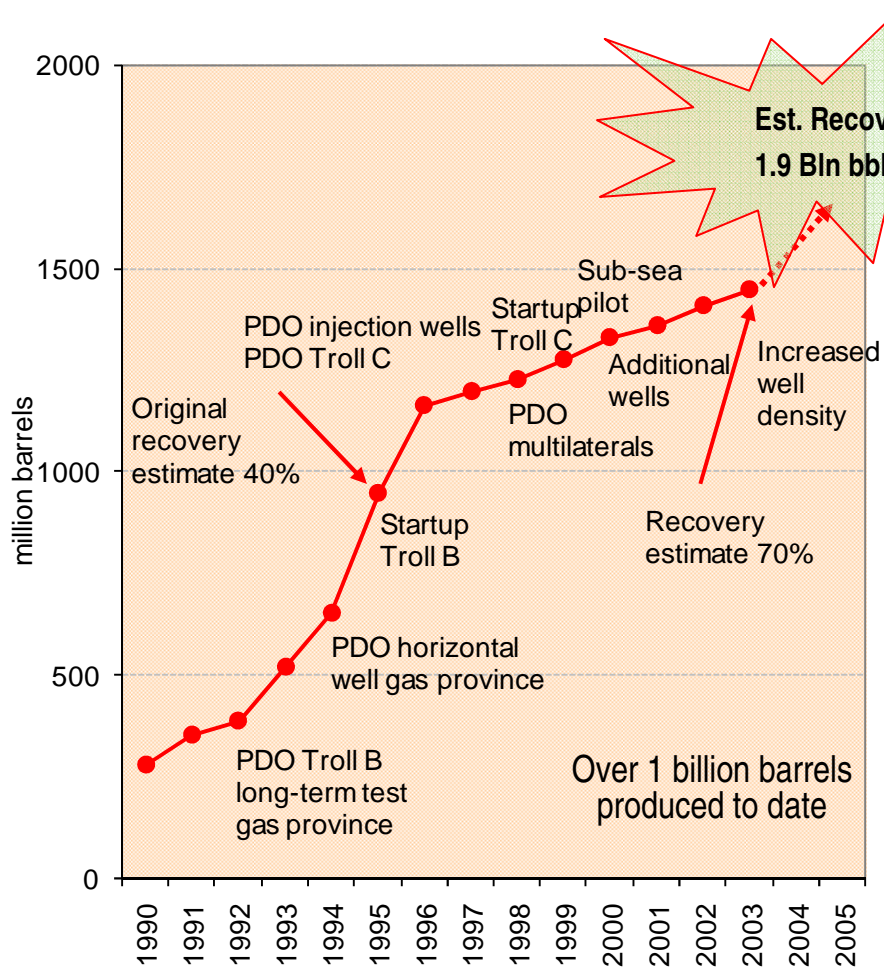
Efficient, Precise
Horizontal Drilling



Frac-Point System for Staged Fracturing

... and Creates New Opportunities

Troll Field Offshore Norway



People Are Different



1980s

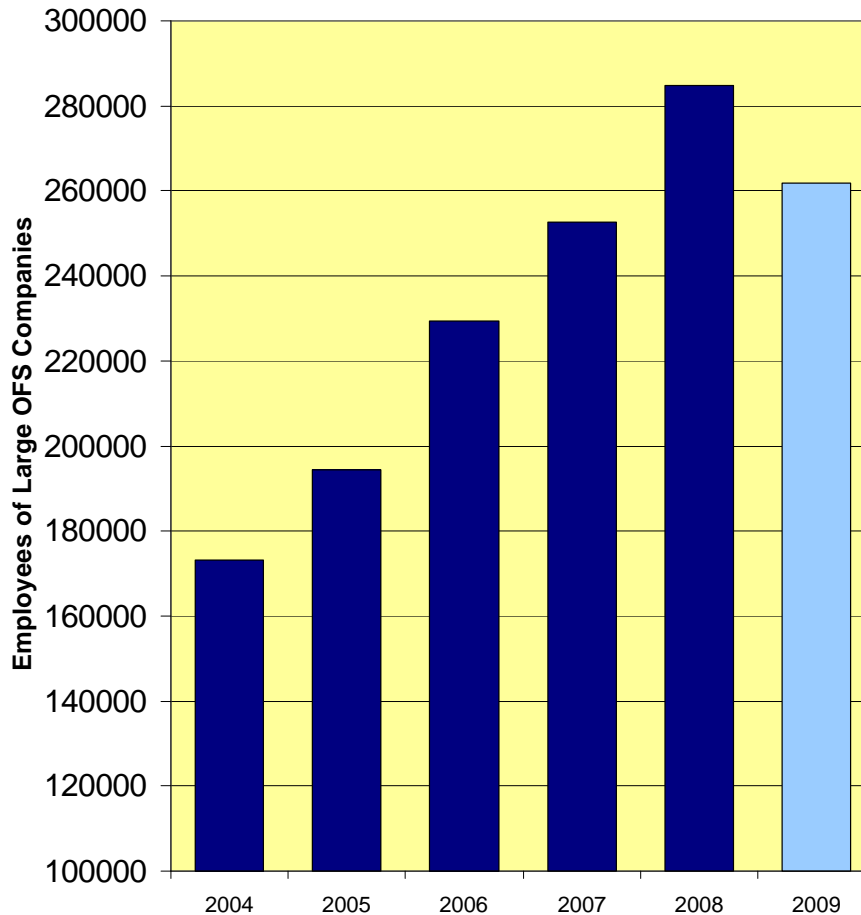
- Skilled Labor
- On-the-Job Training
- Low-Tech Environment



Today

- Degreed Engineers
- Advanced Training
- High-Tech Environment

Rise and Fall in Oilfield Service Employment



- Six large OFS companies added 112,000 employees 2004-2008
- 64% increase
- Staff reductions of 23,000 announced in 2009
- 8% decline from peak
- Will we make the same mistakes as in prior down cycles?
- Will need qualified talent when market recovers

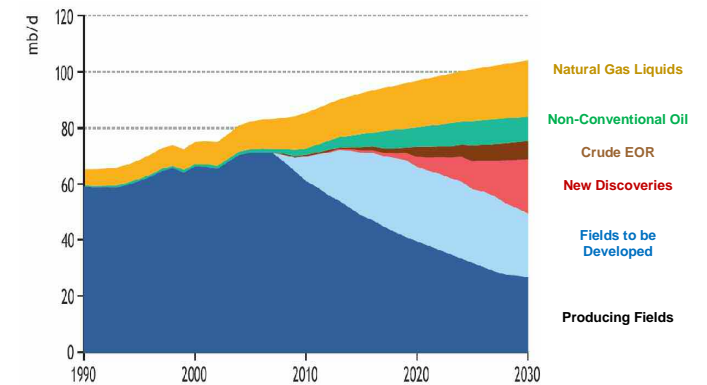
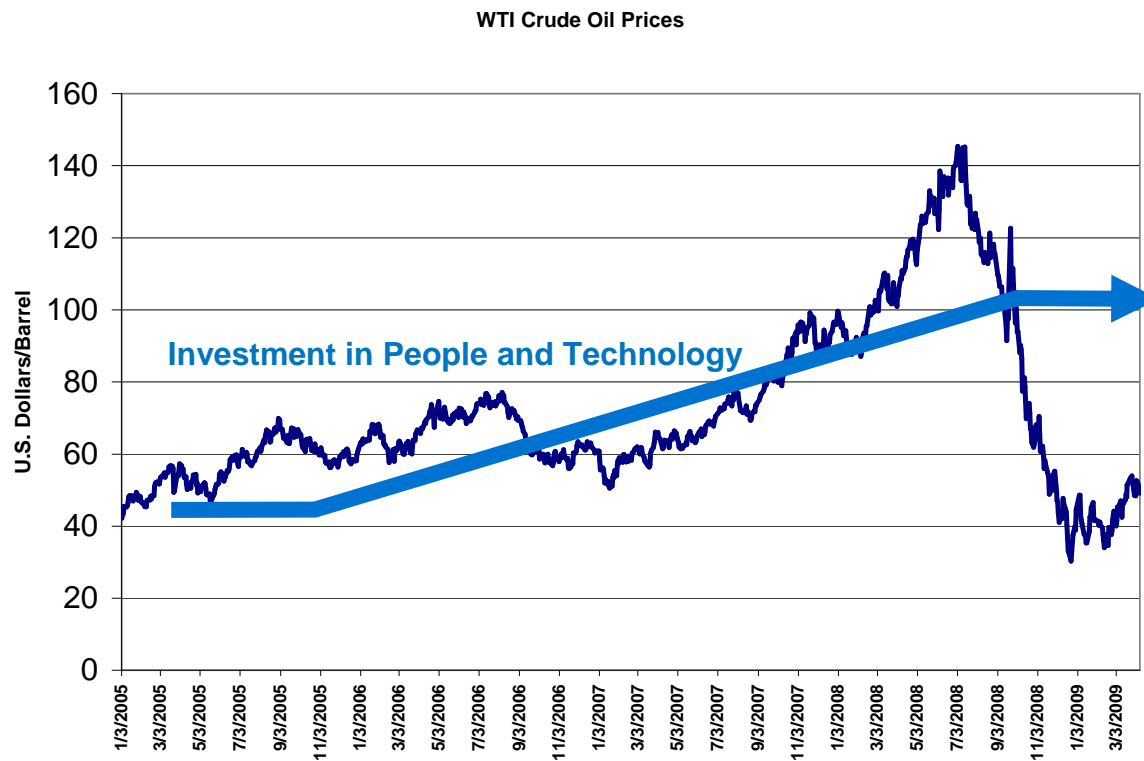
*Baker Hughes, Halliburton, Schlumberger, Weatherford, BJ Services, NOV

*Sources company 10-Ks and news reports

Negative forces potentially at play in a downturn

- Management distraction from the value of technology
- Slow adoption of new technology
- Excessive reductions in technology budgets
- Significant layoffs of Engineers and Scientists
- Dominance of price in purchasing decisions
- Reluctance to support oilfield services companies that invest in the industry

Consistent Investment Required



*Updated 2/13/09

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