

Sustainable Energy Policies: The Key to Energy Security

Global Harmonization of Energy Reserves and
Resources Terminology: The Key to Maximizing Energy
Reserves

The Impact of Uncertainty in Resource Definition on Sustainability

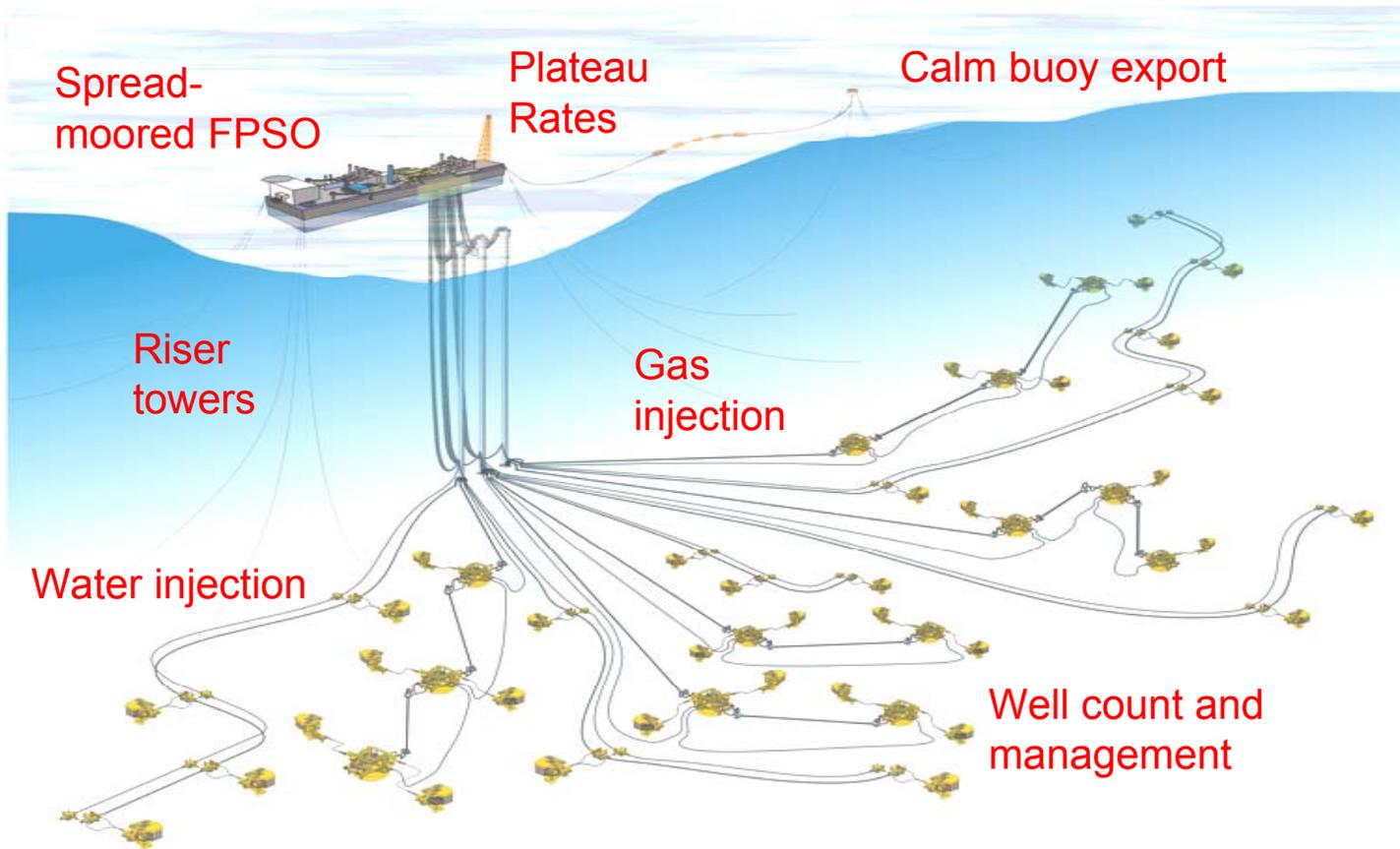
David MacDonald
Segment Reserves Manager, BP
28 November 2006

Resource Definition for Business Processes



- Planning
 - Life cycle depletion plan for an asset
 - Annual business plan
 - Long term business plan
- Investment decisions
 - Efficiency of investment and long-term operation
 - Acquisition and divestment
- Performance management
 - Base Management
 - Progression of resources to production

Typical Deepwater Facility Design

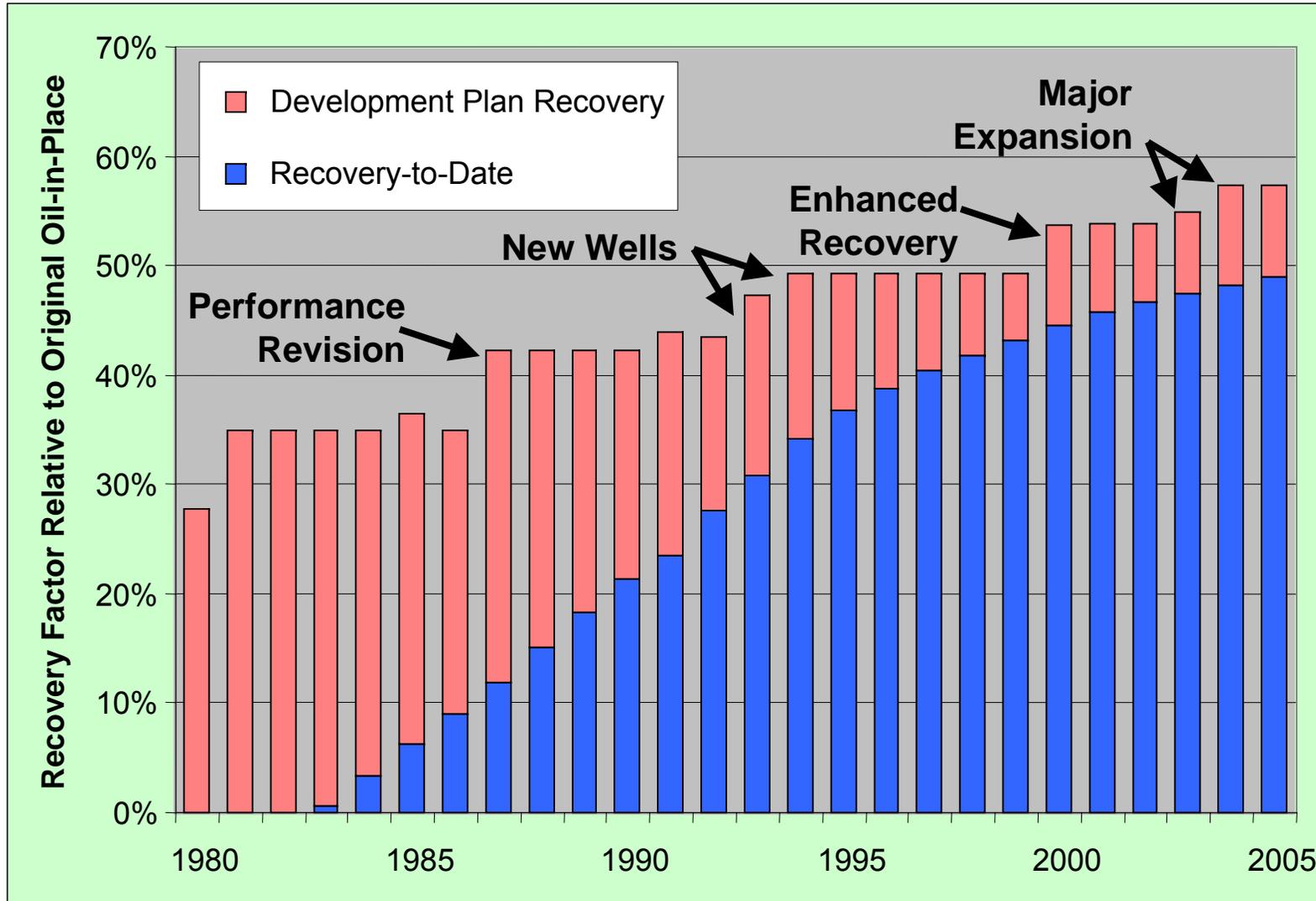


Sources of Uncertainty

- Subsurface
 - Static
 - Dynamic
- Gathering
- Processing
- Transport
- Commercial

Successful development plans include contingencies and mitigations for possible outcomes.

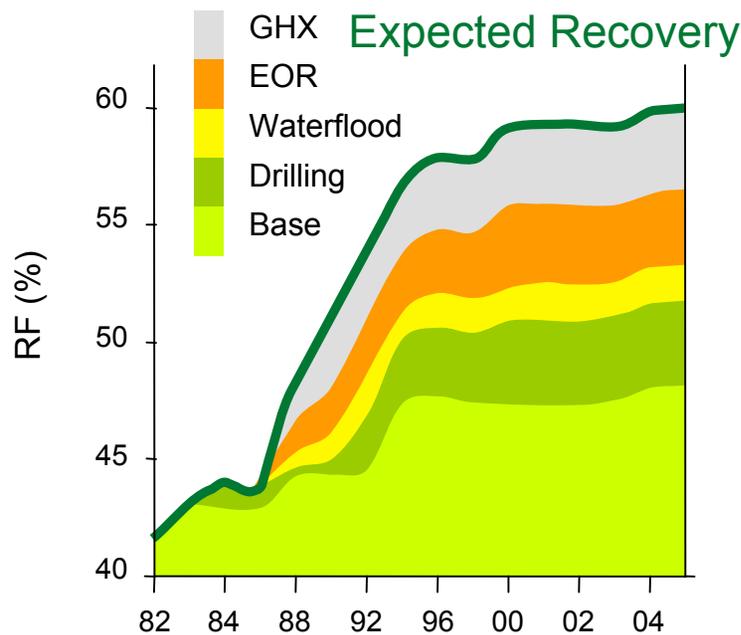
Reserves Growth – Magnus, UK



The Role of Technology

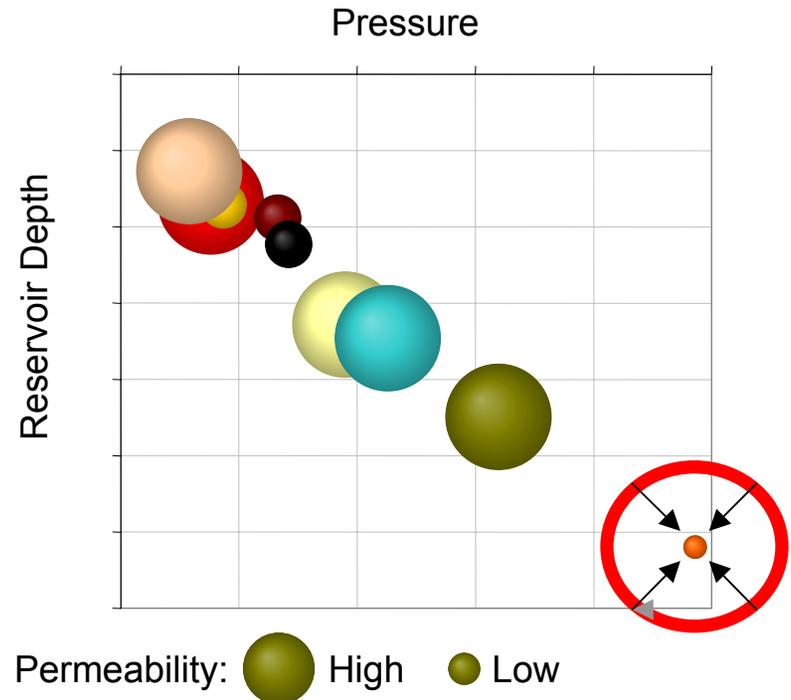


Recovery Factor vs Time



The improvement of hydrocarbon recovery and investment efficiency is demonstrably linked with advances in technology.

New Challenges



The right linkage between depletion and technology plans is vital to maximising value from our assets.

Sustainable Development



- Definition must include entire resource base
 - Maintain competitive advantage
- Initial over-conservatism can lead to lost opportunity
- Uncertainty analysis must differentiate the components
 - Subsurface
 - Project
 - Commerciality

The UNFC with its focus on the criteria of economic viability, technical feasibility and geologic endowment is well placed to meet all of these needs.