Opportunities and Risks in Deepwater Gulf of Mexico from a Regulatory Perspective

Lars Herbst
Bureau of Safety and Environmental Enforcement
Agenda

• Trends in Exploration & Production
• Deepwater Activity
• Challenges & Risks
• Regulator’s Role
• Industry’s Call to Action
• Looking to the Future
Trends in Exploration & Production

- Lower Tertiary
- Pliocene - Miocene
- Norphlet
Rig Activity in Deepwater Gulf of Mexico

Rigs Working in Deepwater GOM: 2009 - 2013
New Deepwater Development Activity

Sanctioned Projects

• **Olympus TLP (Mars B) @ MC806, Shell**, (installed July, 2013, 1st Prod - 2015)

• **Jack – St. Malo @ WR718, Chevron**, (1st Prod - 2014)

• **Big Foot & WR029, Chevron**, (1st Prod - 2014)

• **Lucius (oil/gas) / Hadrian (gas) @ KC875, Anadarko**, (1st Prod - 2014)

• **Tubular Bells @ MC725, Hess Corp.** (1st Prod - 2014)

• **Delta House @ MC254, LLOG Exploration**, (1st Prod - 2015)

• **Heidelberg @ GC865, Anadarko**, (1st Prod - 2016)

• **Stones @ WR508, Shell**, (2nd FPSO in GOM, 1st Prod - 2016)

• **Stampede @ GC468 (Pony) GC468 (Pony)/GC512(Knotty Head), Hess Corp.** (Sanction 2014, 1st Prod 2016)

• **Big Dog (Mad Dog B) @ GC825, BP**, (Sanction under evaluation)
New Deepwater Development Activity

Appraisal Prospects

- **Appomattox** @ MC806, **Shell**, (appraisal)
- **Vito** @ MC984, **Shell**, (appraisal)
- **Gunflint** @ MC984, **Noble Energy**, (appraisal)
- **Hadrian North** @ KC918, **ExxonMobil**, (appraisal)
- **Shenandoah** @ WR052, **Anadarko** and **Coronada** @ WR098, **Chevron**, (appraisal)
- **Buckskin** @ KC872 and **Moccasin** @ KC736, **Chevron**, (appraisal)
- **Kaskida** @ KC292 and **Tiber** @ KC102, (appraisal), **Gila** @ KC093 (Drilling) **BP, [HP/HT])**
- **North Platte** @ GB959, **Cobalt Intl. Energy**, (appraisal)
Challenges in Deepwater GOM

• High Pressure/High Temperature (HPHT)

• Blowout Preventer Technology

• Personnel Experience
Risks in Deepwater GOM

- Metallurgical Failures
- Dynamic Positioning Failures
- Well Control
Industry Addressing Challenges and Risks

• Improving Industry Standards
• Training
• Competency Assurance
• Real Time Monitoring
• Improving QA/QC Manufacturing Process
• BOP and Well Control System Technology and Intelligence
Regulatory Approach to Challenges and Risks

- Regulations
- Notice-to-Lessees
- Deepwater Operations Plans
- Risk Management
- Safety and Environmental Management Plans
- Use of Qualified 3rd Party Reviews
Looking to the Future

• Identification of Best Available and Safest Technology (BAST)

• Industry Standards Organization to Promote Step Changes in Safety through Equipment Specifications and Procedures

• Establishment of Ocean Energy Safety Institute

• Develop Methods to Improve Human Element of Decision
Thank you for your attention.

www.bsee.gov