

From: Pere, Allen L

Sent: Thu Jun 25 20:12:12 2009

To: Bellow, Jonathan M; Sims, David C; Scherschel, Craig; Gai, Huawen; Douglas, Scherie D; Morel, Brian P; Bondurant, Charles H; Charles, Donald; Nguyen, Binh Van; Casler, Christopher; Hafle, Mark E; Depret, Pierre-Andre ; Fleece, Trent J; Gray, George E; Albertin, Martin L.; Hine, Andy J; Baker, Kate H; Sigurdson, Scott; Little, Ian

Cc: Daigle, Keith G; Mills, Bill H; Rogers, Bruce A (Houston); Harland, Richard

Subject: Macondo Peer Review Feedback

Importance: Normal

Attachments: Macondo_Peer_Review_Feedback_Final.ppt

Attached is the feedback presentation for the Macondo, MC-252 #1, peer review.

Thanks

Allen Pere

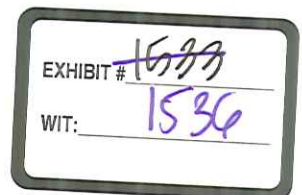
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Macondo Peer Review Feedback

June 25, 2009



Peer Review Team



- | | |
|------------------------------|-----------------|
| • Allen Pere (Review Leader) | EPT D&C |
| • Richard Harland | GoM Drilling |
| • Keith Daigle | GoM Drilling |
| • Bill Mills | GoM G&G |
| • Bruce Rogers | GoM Completions |





Overall Impressions



- Team did a lot of good work
 - Robust design supported by good data and analysis
 - Shallow hazard & PPFG analysis
 - TD criteria guidelines, APB Mitigation & Production Long String
 - Effective use of EPT
- Split execution stage allows rig crews to perform hole section reviews and develop optimized work instructions and logistics planning for post stack period.
- Well location is conducive to a fast track schedule
 - Low risk of shallow hazards
 - Extra (Outside) Salt Location
 - Low risk of No Drilling Surprises
 - Manageable PPFG Window



Peer Review Objectives



Purpose of the Macondo Drilling Peer Review

Gain external perspective of the Macondo Well Plan from the Peer Review Team

Upon review of the plan the Review team to provide feedback on the following:

Identify any "show stoppers" that must be addressed in the Define phase.

Provide endorsement of the plan and/or endorsement contingent on certain actions to be completed in the Define Stage.

No show stoppers identified for this well.

Plan endorsed, comments from peer review team for refinement and optimization.

Project Objectives:

Are the well/project objectives clear? Yes

Are they clearly understood by the Macondo planning team to avoid conflict in the decision making during well execution? Yes, document "keeper" well requirements into objectives.

Risk Management:

Have the major risks of the well been adequately identified and addressed with clear mitigations and contingency planning? Yes, all major risk are addressed and mitigations developed.

Are the mitigation and for contingencies identified for the high impact risks sufficient to minimize the impact on the well performance? Yes, Clarify and update forward plans for subsurface failure case scenario (water contact, stringers, etc). Does less than 45' of net pay mean don't run production casing or just a reduced logging program?



Recommendations



- **Split Execution Operations – Use stack time to BP's advantage**
 - Develop a structured approach for determining minimum start point/ window for open water operations with respect to mob, demob and tow operations
 - Opportunities exists while rig is stacked to align team by rig crew developing hole section specific operation and logistical plans that address post stack hole sections
- **Re-Completion (Uphole) Prospects – Misalignment**
 - Re-Completion prospects are not consistent with SoR objectives
 - Well is not designed for uphole re-completions. Future wells may be designed for accessing uphole reserves
 - Need to clearly understand risk and cost from uphole logging program and justify value.
- **Develop communication and decision making plan with respect to new rig operating with the E&A and Marianas team.**
 - Incorporate learning's from Spirit Operations
- **Pre Drill Data Package**
 - Complete PQOP with evaluation program aligned to SoR objectives
 - Value of information analysis needs to be performed for the current optional whole core evaluation program. This will determine the optimum well to core also if the Isabella core can provide the required data
- **Documents need to have consistent data**
 - TD Depth, Casing Size, Casing Points, Logging Program, Production Facility Location



Open Water Define Stage Focus Areas



- Open Water ECD management
 - Educate rig on Fast Drill ECD plan
 - Define starting point for open water dual gradient drilling to optimize operation efficiency and cost savings. Incorporate pore pressure data and rig limitation in analysis
- Re-fresh team on Hodges conductor jetting method
- Utilize Dip Stick method for wellhead stick up determination in low visibility scenario



Well to TD Define Stage Focus Areas



- Ensure 16" burst / rupture disks are installed correctly before shipping casing to the rig
- Set up completions for success
 - Understand the impact of 12-1/4" x 14" versus 12-1/4" open hole on centralization and perforation efficiency
 - Develop minimum completion rathole requirements
 - Run +/-3,000' of 10-3/4" production casing to allow tubing string options (Standardization)
 - Develop detailed suspension program vetted with the completion team with respect to:
 - Displacing cement with inhibited completion brine
 - Utilizing retrievable bridge plugs to minimize debris
 - Well integrity discussion with Completion Team
 - Cement Evaluation Log Timing
 - Cement planning and execution monitoring