

Evaluation of Casing Design Basis for Macondo Prospect Mississippi Canyon Block 252 OCS-G-32306 Well No.1

Revision 2

14 May 2009





Casing Summary

Macondo Prospect: Based on the detailed analysis the following tubulars are recommended:

Casing weights and grades were selected by; 1) the minimum required to meet the design requirements, and/or 2) standardized combinations for ease of procurement and minimization of BP OCTG stock, and/or 3) the standard tubulars for DW GOM wells. To use up BP stock other connections from the BP Approved Connection List for the are acceptable. The SF_A could change with a change in connection, but nothing significant is anticipated. Based on the above tubular recommendations, a dispensation from the BP Drilling and Well Operations Policy is required for the 22" Surface casing, 16" Intermediate casing, 12.140" Drilling liner, and 9-7/8" Production casing.

Revision 1 changes the 16" from 109.00 ppf and a full string to 96.00 ppf and a liner with the TOL in the 22" 1.500" wall X80 surface casing. Also the 11-7/8" drilling liner is changed to a 13,625" SET.

Revision 2 changes the setting depth of the 22", 18", 16", 13-5/8" and 11-7/8". PTD is changed to 20200 ft and the PP and FG were revised slightly.

This is a sub-sea well designed for production. Evaluation for the mitigation for APB (Annular Pressure Build-up), for the drilling case, is recommended.

Introduction

Macondo Prospect R2

May 2009

The casing pressure test (PT) loads were selected to provide results at or near the worst case burst load and have not been checked for compliance with any government requirements. The final design factors do not include any allowance for casing wear.

Figure 2: Macondo Prospect MC252Proposed Casing R2