



## Lessons Learned from Integrated Analysis of GOM Drilling Performance

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### **Abstract:**

Offshore drilling continues to be extremely cost intensive where \$50-million wells are not uncommon. This paper discusses lessons learned and potential benefits from a comprehensive analysis of Gulf of Mexico historical data for drilling performance benchmarking and continuous cost reduction. The “Best Composite Time” (BCT) introduced in recent papers (Refs 1-3) was applied along with learning-curve analysis, and other investigative tools to examine drilling problems, and to challenge well planning and construction practices. Drilling operations were broken down into discreet activities and the best times were aggregated to form the BCT. The “Best Composite Cost” (BCC), the dollars equivalent, was also calculated and used for cost benchmarking. Correlative analyses of the wells, i.e. cross-plots of drilling events alongside mud log data, wireline logs, and geologic data, were used to elucidate major well problems and abnormal flat times that caused deviations from the BCT. Correlative analysis also helped explain why some wells were drilled relatively trouble-free.

From a more detailed trouble-time analysis of the wells, major drilling problems were found to be well-pressure related (lost circulation, well control, stuck pipe), supporting increased emphasis on improved planning and quantification of ECD, deepwater geopressures, and drilling margins. The BCT/BCC methodology is actually one element of the “Ten-Step Process” discussed exhaustively in Refs. 1 and 2. Experiences from two onshore areas so far have been very encouraging in drilling cost reduction. Applications to more complicated offshore GOM wellbores, cost components, and narrow geo-pressure margins are the focus of this paper.

### **Biography:**

Bob Meize has over 25 years drilling and production experience in offshore and onshore operations. He has worked areas in West Texas, Rocky Mountain, Mid-Continent and Gulf Coast regions. He joined Anadarko in 1994 after a career with Arco and is currently Anadarko's Division Drilling Manager for Worldwide Deepwater Operations. He has been involved with developments in subsalt, deepwater and shelf drilling while at Anadarko. He has co-authored numerous technical papers on these subjects along with presentations to various industry groups. Bob holds a BS in Petroleum Engineering from New Mexico Tech and a Masters in Business Administration from Oklahoma City University.