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The Process for the Evaluation of Exploration in PEMEX Exploration and Production

Over the last few years Pemex E & P has strengthened its exploratory effort through regional studies, 3D data acquisition, application of current technology and the identification of new petroleum systems. This has resulted in the identification and documentation of more than 2400 new oil and gas opportunities. It is important to understand that these projects span the entire spectrum of risk and uncertainty distributions (range of outcomes).

The growth in the number and diversity of opportunities as well as a limited capital budget, obligated the exploration function of Pemex E & P to reengineer its exploration evaluation process. The revised process allows for quantitative evaluations of large numbers of exploratory opportunities and locations and delivers comparable relative values that can be used to rank opportunities in the context of strategic goals and optimize capital allocation decisions. Process integrity is maintained through consistent language and definitions, estimation reality checks and post drill performance tracking. Calibration and continual process improvement are integrated into the process and result in enhanced performance.

This paper presents the main characteristics of the process, the methodology and tools that are used in the evaluation of an individual opportunity, a play, a basin or the whole nation. Also outlined will be the process criteria needed to bring performance accountability to exploration insuring value maximization for the capital invested.